





VALUABLE WORKS

PUBLISHED BY

G. AND C. MERRIAM.

Springfield, Mass.

Memoir of ZERAH COLBURN, [The Untaught Mathematician] : Written by Himself. With a Portrait.

EVENING READINGS IN HISTORY.—

Adapted to the use of Families, and particularly to the benefit of their younger members. Comprising portions of the History of Assyria, Egypt, Tyre, Syria, Persia, and the Sacred Scriptures. With Questions to aid in the instruction of the young. 16mo.

BIOGRAPHY OF PIOUS PERSONS.

Abridged for Youth. 18mo. pp. 336. ↪ also the same in 2 vols. for Sunday Schools.

Dick's PHILOSOPHY OF RELIGION.

Scott's FORCE OF TRUTH.

MEMOIRS OF DARRACOTT.

VILLAGE SERMONS.

HOW TO DO GOOD : or Practical Lessons on the great Science of Human Life. Designed for frequent reading and daily use.— 48mo. pp. 112.

A PRESENT FOR A HUSBAND OR A WIFE. By a Married Man. 48mo. pp. 120.

The ADVANTAGES AND DISADVANTAGES OF THE MARRIAGE STATE.—An Allegory. 32mo.

The New and Fashionable American LETTER WRITER, or the Art of Polite Correspondence, &c. 18mo.

The New and Improved CAMP-MEETING HYMN BOOK. By Orange Scott, Minister of the Gospel. 32mo. pp. 224.

Guy's POCKET CYCLOPEDIA. 12mo.

SCHOOL BOOKS.

The AMERICAN READER. Containing Extracts suited to excite a love of Science, &c.—12 mo.

The GRAMMATICAL ASSISTANT. By S. R. Hall. 12mo. pp. 148.

The CHILD'S GUIDE : Comprising Familiar Lessons, designed to aid in Correct Reading, Spelling, Defining, Thinking and Acting.

From the Vermont Chronicle, Oct. 25, 1833.

THE CHILD'S GUIDE is a book that we can cheerfully recommend, as a school book fitted to be very useful. It is a reading book with helps for spelling and defining ; having in view, also, the end of making children think while they read, and of exerting a good moral influence on their conduct. We think the plan is carried into suc-

cessful execution, and we admire the selection of matter, most of which is new to a school book, and all of which, so far as we have examined, is well calculated to please—a quality of no small consequence in a school book for children.

From the Rev. S. R. Hall, author of Lectures on School-Keeping, and Principal of the Seminary for Teachers at Andover.

“Our Teachers’ Association were unanimous in awarding to the Child’s Guide the preference over any single reading book in use for children. I have seen none that I think is equally valuable. My opinion of its value has increased with its use.”

“ANDOVER, Oct. 11, 1833.

“Messrs. Merriam,—Several copies of the work entitled the “Child’s Guide” having been received by the members of the “Teacher’s Association,” they take this opportunity to inform you, after a critical examination, that they highly approve of the selection and arrangement of its matter, and believe it to be better adapted to the wants of the young, and better calculated to advance them in the art of *reading*, than any work they have heretofore seen.

H. O. RANDALL,	} Committee.”
H. H. GRIFFEN,	
J. C. HOYT,	

“I can express the entire concurrence of my views with those of the ‘Teachers’ Association,’ which are certainly very conclusive.”

A Philadelphia Teacher.

From the Boston Recorder, Nov. 27, 1833.

“We know of few school books more interesting, or more improving to the younger classes of our schools, than the Child’s Guide. One evidence of its merit is the fact, that since 1830, it has gone through six editions. As to its moral tendency, we know of no human work for classes in reading which we think surpasses it. This opinion is given as the result of many years’ experience among pupils, and schools, and school books.”—*[A Correspondent.]*

From the Juvenile Rambler, Nov. 1833.

"We doubt whether there is a better reading book for very young classes to be found. It is highly interesting in itself, and is rendered more attractive by engravings. Besides, its *moral* tendency is *peculiarly* happy."

"This is unquestionably one of the best books extant for the young classes in common schools."—*Christian Watchman*.

The EASY PRIMER. Containing Children's First Lessons in Reading and Spelling.

"After testing it in my family and the preparatory school connected with my seminary, I am free to say, I hardly know how a better book for young children can be made."

S. R. HALL.

The FRANKLIN INTELLECTUAL ARITHMETIC. By E. Davis, A. M. Preceptor of Westfield Academy. 18mo. pp. 108.

The CHILD'S ASSISTANT in acquiring Useful and Practical Knowledge. 18mo.

✍ The above sold by Carter, Hendee & Co. Boston—Whipple & Lawrence, Salem—Charles Whipple, Newburyport—Rand & Southmayd, Lowell—Carter, Andrews & Co. Lancaster—Dorr & Howland, Worcester—William Hyde, Portland—D. F. Robinson & Co. Hartford—Collins & Hannay, New York—and by Booksellers in the principal towns in New England and the Middle States.

—SUPPLIED ON FAVORABLE TERMS—

School, Classical, and Miscellaneous Books, and Stationary.

AN
ACCOUNT
OF
JANE C. RIDER,
THE
Springfield Somnambulist:

THE SUBSTANCE OF WHICH WAS DELIVERED AS A
LECTURE BEFORE THE SPRINGFIELD
LYCEUM, JAN. 22, 1834.

BY L. W. BELDEN, M. D.

SPRINGFIELD:
PUBLISHED BY G. AND C. MERRIAM.
1834.

12
12

Entered according to the Act of Congress, in the year
1834, by G. & C. MERRIAM, in the Clerk's Office of the
District Court of Massachusetts.

PREFACE.

IT was originally my intention to make the extraordinary case of Miss Rider the subject of a communication to one of the Medical Journals ; and, on that account, though frequently solicited, I have uniformly declined to furnish a statement of the facts for publication in the newspapers. After the delivery of the Lecture which forms the basis of the following history, it was suggested, by several gentlemen, that the popular form in which the subject is here presented, was better calculated to meet the wishes of the public than a history more strictly professional. From the wide circulation that has been given to the partial accounts which have already appeared, it is believed that a curiosity to see an authentic narrative of all the circumstances connected with this truly remarkable case has been excited in many,

who would have little relish for a purely medical Essay. To furnish such a narrative, the Lecture, with a particular history of her case since the residence of the "Somnambulist" in the Lunatic Hospital, obligingly communicated by the distinguished gentleman who presides over that institution, is submitted to the public. The introductory remarks, though they contain nothing original, seemed to be required, to render the subject generally intelligible; they consequently have been allowed to retain the same place which they occupied when the Lecture was delivered.

Springfield, Feb. 18, 1834.

CONTENTS.

CHAPTER I.

Page.

General Remarks on Somnambulism.—Sleep.—	
Dreaming and Insanity.—Remarks from Dr.	
Abercrombie.—Somnambulism ; most frequent	
in childhood.—Student in Yale College.—Ser-	
vant-girl.—Case mentioned by Dr. Dyce.—	
Young lady mentioned by Maj. Elliott.—Lad	
of Lausanne.	9

CHAPTER II.

JANE C. RIDER.—Early history.—First attack of	
Somnambulism.—Second paroxysm ; her con-	
duct in it.—Loss of memory —Operations	
in the dark.—Time of Attack.—General de-	
scription of the paroxysms.—Acuteness of vi-	
sion.—No recollection when awake of her	
conduct in the somnambulist state.—Experi-	
ments proving the extraordinary power of vi-	
sion.—Power of imitation, &c. confined to the	
state of somnambulism.—Removal to Insane	
Hospital at Worcester.—Abstract from the	
Records of the Hospital.—Letter written by	
Jane in one of her paroxysms.—Letters from	
Dr. Woodward.	29

CHAPTER III.

	Page
Impossibility of imposture.—Cases of affection of the mental faculties by disease.—Of a person whose recollection of a language long forgotten was restored.—Similar case mentioned by Dr. Prichard.—Woman in Scotland.—Case mentioned by Dr. Rush.—Boy.—Peculiarity of the case of Jane C. Rider. Theory of vision.—Analogy of Light and Heat.—Case of Caspar Hauser.—Theory of Jane's case.—Zerah Colburn.—Connexion of the physical with the mental organization.—Extract from a Lecture of Dr. Woodward. - - - - -	93

APPENDIX.

Note A.—Caspar Hauser ; acuteness of his sensual perceptions. - - - - -	121
Note B. - - - - -	126
Note C.—Zerah Colburn. Examples of his remarkable calculations. - - - -	127

Testimonials from Individuals who saw Miss Rider in her paroxysms.

Letter from Hon. Wm. B. Calhoun. - - -	130
Letter from Rev. Wm. B. O. Peabody. - -	<i>ib.</i>
Letter from Dr. John Stone. - - -	132
Letter from Rev. Dr. Osgood. - - -	133
Letter from Dr. M. B. Baker. - - -	134

AN ACCOUNT
OF
JANE C. RIDER.

CHAPTER I.

*GENERAL REMARKS ON SOMNAMBULISM—
WITH CASES.*

SOMNAMBULISM, or sleep walking, forms, as it were, the connecting link between dreaming and insanity ; and, in order to a full understanding of its nature, it will be necessary to offer a few remarks relative to these two seemingly different, but really analogous states. .

Sleep has been defined to be the repose of the organs of sense and of voluntary motion. The senses cannot long continue to receive impressions, or the muscles to contract, without fatigue, and the necessity for the reparation of those powers which have been

expended during their action. After a period of activity, which cannot be extended beyond certain limits, the mind becomes insensible to the presence of external things—sounds are not heard, odors are not perceived, heat or cold is not felt—all access to the mind through the organs of sense is closed—the intellectual operations become dull and confused—recollection finally ceases, and it is supposed that, in perfect sleep, there is neither thought nor idea of any kind. During this suspension of action in the organs of relation, as they are called, or those by means of which the mind holds communication with outward objects, the functions of organic life, such as respiration and circulation, those which are necessary to mere animal existence, continue.

Sleep, in the language of poetry, has been compared to death : and Dr. Good has stated that the resemblance between them is not less correct upon the principles of physiology, than it is beautiful among the images of poetry. “Sleep is the death or torpidude of the voluntary organs, while the

involuntary continue their accustomed actions. Death is the sleep or torpitude of the whole." There is also another striking difference. During the whole of sleep, a process of renovation is probably going on in the organs of relation, which adapts them for subsequent activity, and contrasts signally with the state of annihilation which constitutes death.

On the approach of sleep, all the organs are not simultaneously affected. "The closure of the eye first shuts out the sight, the smell yields after the taste, the hearing after the smell, and finally the touch sleeps. Sensations of hunger, thirst and pain, are no longer noticed. From the first, the intellectual and moral powers partake of the languor which pervades the frame—the will relaxes its control—the ideas flit for a time in a disorderly manner, constituting a kind of delirium—recollection is finally lost, and the sleep becomes complete."

The state of complete sleep, or that which is characterized by a total suspension of all the voluntary powers, and all intellectual

operations, if it occurs at all, does not long continue. After a period of repose, of longer or shorter duration, some of the organs having been less exhausted, or requiring a shorter time for reparation, awake ; sensations are obscurely perceived, and visions again float across the mind. The sense of sight and the voluntary motions are least readily roused, so that those functions which fall asleep the last, are most readily awaked ; and they gradually resume their activity in the same order in which they lost it. It is in this state of incomplete sleep that dreams occur, when the senses are but partially awake, and the will is powerless.

We have the power, when awake, not only of perceiving external objects, but of recalling former impressions in the absence of the objects which originally excited them. These impressions may be recalled in the same order and connexion in which they at first occurred, constituting memory ; or new combinations may be formed from the materials furnished by the senses—a power to which we give the name imagination.

Philosophers suppose that in every act of memory or imagination, the scene thus represented to the mind is attended with a momentary belief of its reality—a belief, however, which the senses enable us immediately to correct. For example, in thinking of a past transaction, we for the moment regard it as actually present ; and this impression remains till reason, by comparing the vision with the actual state of things in the external world, dispels the belief. There are, however, states in which this belief of the independent existence of that which is only passing in the mind is not corrected by the actual relations of external things. Of these states, dreaming and insanity constitute two remarkable examples. In insanity, the senses are awake and the will active ; still, the false impression remains and influences the conduct. “ The maniac fancies himself a king, possessed of boundless power, and surrounded by every form of earthly splendor ; and, with all his bodily senses in perfect exercise, this hallucination is in no degree corrected by the sight of his

bed of straw, and all the horrors of his cell.” The same belief in the reality of that which occupies the mind occurs in dreams; but the will, in this state, having no control over the active powers, the conduct is not affected, and the vision is dissipated upon awaking.

Dr. Abercrombie remarks that the peculiar condition of the mind in dreaming, appears to be referable to two heads :

I. “The impressions which arise in the mind are believed to have a real and present existence; and this belief is not corrected, as in the waking state, by comparing the conception with the things of the external world. II. The ideas or images in the mind follow one another according to associations over which we have no control; we cannot, as in the waking state, vary the series, or stop it at our will.”

Somnambulism partakes of the character both of dreaming and insanity. The mind, as in dreaming, is fixed on its own impressions, which, it supposes, have a real and present existence—a delusion which is tem-

porary, and is dispelled on waking—but, as in insanity, the will excites the organs of voluntary motion, so that the person *acts* under the influence of his conceptions. The somnambulist is also, to a certain extent, sensible of the presence of external things ; but the ideas received through the organs of sense do not correct the erroneous conceptions, but rather intermingle with and confirm them. Somnambulism, therefore, is a state of imperfect sleep, in which the mind, sensible, to some extent, of the presence of external things, still believes in the reality of the visions by which it is occupied, and acts under the influence of this belief.

This state occurs most frequently in childhood, and is often connected with frightful dreams. Soon after going to bed, before the period of sound repose, dreadful visions haunt the mind. The individual imagines himself in some danger from which he attempts to escape—his first efforts are unsuccessful, because the limbs do not obey the will—at length the will regains its power, and the dreamer, trembling with apprehension, rises, and often calls for help.

Some time generally elapses before the false impression vanishes, and the mind becomes sensible to surrounding objects. Precisely of the same nature are those dreams from which adults awake in terror, the heart palpitating violently, and the whole system in a state of agitation ; but the organs of motion in them being less easily excited by the will, they wake in the struggle. It is under the influence of dreams of a different kind, that some persons talk in their sleep, the will acting in correspondence with the thoughts which occupy the mind. The only difference between dreaming and sleep talking is, that in one case the organs of speech obey the will, and in the other they do not.

The next variety occurs in those individuals, who, under the influence of dreams, rise from bed, walk about the house, finding their way without difficulty and avoiding obstacles, engage in various employments, and finally return to bed. These transactions are afterwards remembered only as a dream. The case of a young nobleman is

mentioned, "Who was observed by his brother to rise in his sleep, wrap himself in his cloak, and escape by his window to the roof of the building. He there tore in pieces a magpie's nest, wrapped the young birds in his cloak, returned to his apartment and went to bed. In the morning he mentioned the circumstance as having occurred in a dream, and could not be persuaded that there had been any thing more than a dream, till he was shown the magpies in his cloak." The most remarkable example of this kind with which I have been personally acquainted, was that of a young gentleman in Yale College, who rose in his sleep, jumped from a window in the third story of the college buildings, breaking several panes of glass in his fall, and ran some rods before he awoke. The account which he gave of the occurrence was, that he dreamed he was in the hall stealing pies; and finding there was no other way to avoid detection, he escaped through the window, and ran, as he imagined, towards

his room. He received only a slight injury from the fall.

So far, the philosophy of somnambulism appears perfectly intelligible, and we find little difficulty in accounting for the phenomena which this class of cases presents. But there are other cases, which, while they retain so many points of resemblance to the preceding as to be included under the same name, still differ from them in many important particulars. Some of these present symptoms of a very extraordinary nature. While there is the same belief in the reality of the scenes which occupy the mind, united with at least a partial insensibility to external impressions, which exists in ordinary somnambulism, there is a state of the intellectual powers analogous to that which is occasionally witnessed in insanity, or as the effect of injury to the brain, attended in some instances, with increased sensibility in one or more of the organs of sense. It occurs also, most generally, in the form of a fit, or paroxysm, at any hour during the day, is preceded by certain pre-

monitory symptoms, and is invariably connected with disorder in some of the bodily functions. There is an entire interruption of consciousness, the individual, on waking, retaining no recollection of what transpired in the paroxysm, though, in some instances, the knowledge is restored in a subsequent paroxysm.

Several examples of this affection are given by medical writers, some of which I will relate.—“An ignorant servant-girl, mentioned by Dr. Dewar,” observes Dr. Abercrombie, “during paroxysms of this kind, showed an astonishing knowledge of geography and astronomy, and expressed herself in her own language in a manner which, though often ridiculous, showed an understanding of the subject. The alternations of the seasons, for example, she explained by saying that the earth was set *a-gee*. It was afterwards discovered that her notions on these subjects had been derived from overhearing a tutor giving instructions to the young people of the family.”

Another case, in many of its features very similar to the one which has recently occurred in this town, is described by Dr. Dyce of Aberdeen. "The patient was a servant-girl, and the affection began with fits of somnolency, which came upon her suddenly during the day, and from which she could, at first, be roused by shaking, or by being taken out into the open air. She soon began to talk a great deal, during the attacks, regarding things which seemed to be passing before her as a dream; and she was not at this time sensible to any thing which was said to her. On one occasion she repeated distinctly the baptismal service of the church of England, and concluded with an extemporary prayer. In her subsequent paroxysms she began to understand what was said to her, and to answer with a considerable degree of consistency, though the answers were generally, to a certain degree, influenced by her hallucinations. She also became capable of following her usual employments during the paroxysm: at one time she laid out the table correctly for

breakfast; and repeatedly dressed herself and the children of the family, *her eyes remaining shut the whole time.* The remarkable circumstance was now discovered that during the paroxysm she had a distinct recollection of what took place in former paroxysms, though she had no remembrance of it during the intervals. At one time she was taken to church while under the attack, and there behaved with propriety, evidently attending to the preacher; and she was at one time so much affected as to shed tears. In the interval she had no recollection of having been at church; but in the next paroxysm she gave a most distinct account of the sermon, and mentioned that part of it by which she had been so much affected.

“This woman described the paroxysm as coming on with a cloudiness before her eyes, and a noise in the head. During the attack the eyelids were generally half shut; her eyes sometimes resembled those of a person affected with amaurosis, that is, with a dilated and insensible state of the pupil, but sometimes they were quite natural.—

She had a dull, vacant look ; but, when excited, knew what was said to her, though she often mistook the person who was speaking ; and it was observed, that she seemed to discern objects best which were faintly illuminated. The paroxysms generally continued about an hour, but she could often be roused out of them ; she then yawned and stretched herself, like a person awaking out of sleep, and instantly knew those about her. At one time, during the attack, she read distinctly a portion of a book which was presented to her ; and she often sung, both sacred and common pieces, incomparably better, Dr. Dyce affirms, than she could do in the waking state. The affection continued to recur for about six months.”

A most remarkable example of interrupted consciousness is related by Major Elliot, Professor of Mathematics in the U. S. Military Academy at West Point. “The patient was a young lady of cultivated mind, and the affection began with an attack of somnolency, which was protracted several hours

beyond the usual time. When she came out of it, she was found to have lost every kind of acquired knowledge. She immediately began to apply herself to the first elements of education, and was making considerable progress, when, after several months, she was seized with a second fit of somnolency. She was now at once restored to all the knowledge which she possessed before the first attack, but without the least recollection of any thing that had taken place during the interval. After another interval she had a third attack of somnolency, which left her in the same state as after the first. In this manner she suffered these alternate conditions for a period of four years, with the very remarkable circumstance that during one state she retained all her original knowledge ; but during the other, that only which she had acquired since the first attack. During the healthy interval, for example, she was remarkable for the beauty of her penmanship ; but during the paroxysm wrote a poor, awkward hand. Persons introduced to her during the

paroxysm she recognised only in a subsequent paroxysm, and not in the interval; and persons whom she had seen for the first time during the healthy interval, she did not recognise during the attack."

The only remaining case to which I shall at present refer, is one furnished by the report of a select committee to the Physical Society of Lausanne. This relates to a lad, in the fourteenth year of his age, residing in Vevay, who was subject to somnambulism. The fits lasted several hours, and generally occurred two nights successively, after which there was an interval, sometimes of several weeks. They were preceded by heaviness in the head and a sense of weight in the eyelids, and their departure was announced by a few minutes of quiet sleep, during which he snored. He then awoke, rubbing his eyes like a person who has slept quietly. During the paroxysms he talked, sometimes sat up, and was subject to continued involuntary motions. When he awoke he could not recollect what he had been doing during the fit.

From the facts which they observed, the committee infer, “ that the power of vision is not suspended as to those objects which the sleep-walker wishes to see ; that in order to see, he is obliged to open the eyes as much as he can, but when the impression is once made, it remains : that objects may strike the sight without striking the imagination, if it is not interested in them ; and that he is sometimes informed of the presence of objects without either seeing or touching them. On one occasion, as he was writing, a thick paper was put before his eyes, notwithstanding which he continued to write, and to form letters very distinctly ; showing signs, however, that something incommoded him, which apparently proceeded from the obstruction which the paper, being held too near his nose, gave to the respiration. At another time, having written several lines from a copy, he perceived that in one word he had omitted a letter, and in another had inserted a superfluous one ; he then stopped writing to make the necessary corrections.”

The fact that this lad could write with

his eyes shut and an obstacle before them, the committee account for in the following manner. "His paper," say they, "is imprinted on his imagination, and every letter he means to write is also painted there, at the place at which it ought to stand on the paper, and without being confounded with the other letters. Now it is clear that the hand, which is obedient to the will of the imagination, will trace them on the real paper, in the same order in which they are represented on that which is pictured in the mind. It is thus that he is able to write several letters, several sentences, and entire pieces."—An experiment mentioned afterwards gives some appearance of probability to this conclusion. The lad had a light beside him and had certified himself of the place where his inkstand was standing by means of sight. From that time he continued to take ink with precision, without being obliged to open his eyes again ; but the inkstand being removed he returned as usual to the place where he thought it was. It must be observed that the motion of the

hand was rapid till it reached the height of the inkstand, and then he moved it slowly, till the pen gently touched the table as he was seeking for the ink ; he then perceived that a trick was put upon him, and complained of it ; he went in search of the inkstand, and put it into its place. This experiment was several times times repeated, and always attended with the same circumstances.

CHAPTER II.

ACCOUNT OF JANE C. RIDER.

SECT. I. *First period, in which the attacks were confined to the night season.*

NONE of the cases to which I have alluded in the preceding chapter, and they are the most remarkable that I can find recorded, appear so extraordinary as the one which has recently occurred in this town, the phenomena of which have been witnessed by hundreds. The incredulity, also, with which the accounts respecting this case have been received by the public, and even by scientific men, shows that, if it is not wholly unexampled, similar instances must be exceedingly rare. While it equals the most wonderful of the preceding examples in the vast increase of some of the mental faculties, it far exceeds them all in respect to the power of vision.

JANE C. RIDER, the subject of the following history, is a native of Vermont, and in the 17th year of her age. Her father, a very ingenious and respectable mechanic, resides in Brattleborough. With him, and with the friends of her mother, whose sudden death from disease of the brain rendered her an orphan in early infancy, she lived till last April. At that time she removed to Springfield, and became an inmate of the family of Mr. Festus Stebbins; where her intelligence and uniformly mild and obliging disposition soon secured the confidence and love of all with whom she was connected. Her education is superior to that which is usually acquired by those occupying the middle rank in society. She is fond of reading, and especially delights in poetry, her selections of which generally evince a chaste and correct taste. Though of a full habit, her appearance is prepossessing, and her plump and rosy cheeks, by the unprofessional observer at least, would be regarded as the index of perfect health. She, however, has always been subject to fre-

quent headaches, and other symptoms arising from an undue determination of blood to the head; and about three years since was, for several months, affected with *Chorea*. A small spot on the left side of the head, near the region which phrenologists assign to the organ of "*marvellousness*," has, since her earliest recollection, been *tender*, or painful on pressure, and the sensibility is much increased when she suffers from headache. During the paroxysms to which she has lately been subject, this spot, at all times painful, is frequently the seat of such intense agony as to induce her to exclaim, "It ought to be cut open—it ought to be cut open." Her eyes are so sensible to the light, that she invariably suffers when she goes abroad in a clear day without a veil. From her infancy she has been in the habit of sleeping more soundly, and a greater number of hours, than is usual. She is seldom conscious of dreaming, and rarely wakes of her own accord in the morning. In her childhood she was in the habit of occasionally rising in her sleep, but did not

manifest any of the peculiar powers on those occasions which have since rendered her case so remarkable.

I have given this sketch of her early history to show that there is nothing in her character or in that of those connected with her, to give the slightest occasion for the suspicion that she is an impostor.—Her apprehension respecting the probable termination of her malady was such, that after a paroxysm of unusual length it was deemed advisable not to inform her of its actual duration ; when, however, the truth was accidentally revealed to her, she burst into tears. I do not believe it possible for any one to watch her during a paroxysm, and witness the artlessness and consistency of her conduct, the unequivocal signs of extreme suffering which she occasionally manifests, and above all to observe the symptoms of returning consciousness, without the fullest assurance that there is in this nothing feigned. In fact, after visiting her, *all*, I believe, without a single exception, have come away with the conviction that there

can be no such thing as imposture. If there be a mistake, it is in us—in the conclusions which we draw from our observations—in her I am satisfied there is no intentional deception.

The singular affection of which she has lately been the subject, made its first appearance on the night of the 24th of June. I was called, under the impression that she was deranged, and such at first was my own belief. She was struggling to get out of bed, complaining very much at the same time of pain in the left side of the head. Her face was flushed, the head hot, eyes closed, and her pulse much excited. Attributing the attack to the presence of undigested food in the stomach, I gave her an active emetic, which she took voluntarily, supposing me to be her father. She rejected a large quantity of green currants, after which she became more quiet, and soon fell into a natural sleep, from which she did not wake till morning; when she was totally unconscious of every thing which had passed in the night, and could scarcely be persuaded

that she had not slept quietly during the whole time.

Nearly a month elapsed before another paroxysm. Then, after several attempts to keep her in bed, it was determined to suffer her to take her own course, and watch her movements. Having dressed herself, she went down stairs, and proceeded to make preparations for breakfast. She set the table, arranged the various articles with the utmost precision, went into a dark room and to a closet at the most remote corner, from which she took the coffee cups, placed them on a waiter, turned it sideways to pass through the doors, avoided all intervening obstacles, and deposited the whole safely on the table.

She then went into the pantry, the blinds of which were shut, and the door closed after her. She there skimmed the milk, poured the cream into one cup and the milk into another without spilling a drop. She then cut the bread, placed it regularly on the plate, and divided the slices in the middle. In fine, she went through the

whole operation of preparing breakfast with as much precision as she could in open day; and this with her eyes closed, and without any light except that of one lamp which was standing in the breakfast room to enable the family to observe her operations. During the whole time, she seemed to take no notice of those around her, unless they purposely stood in her way, or placed chairs or other obstacles before her, when she avoided them, with an expression of impatience at being thus disturbed.

She finally returned voluntarily to bed, and on finding the table arranged for breakfast when she made her appearance in the morning, inquired why she had been suffered to sleep, while another had performed her duty. None of the transactions of the preceding night had left the slightest impression on her mind—a sense of fatigue the following day being the only evidence furnished by her consciousness in confirmation of the testimony of those who saw her.

After this the paroxysms became more frequent, a week seldom passing without

her getting up two or three times. Sometimes she did not leave her room, but was occupied in looking over the contents of her trunk, and arranging the different articles of dress. She occasionally placed things where she could not find them when awake, but some circumstances induced the belief that the knowledge of their situation was restored to her in a subsequent paroxysm. In one instance she disposed of her needle-book where she could not afterwards discover it; but after some time had elapsed, she was found one night in her chamber, sewing a ring on the curtain with a needle which she must have procured from the lost book.

The entire paroxysm was sometimes passed in bed, where she sung, talked, and repeated passages of poetry. Once she imagined herself at Brattleborough, spoke of scenes and persons with which she was acquainted there, and described the characters of certain individuals with great accuracy and shrewdness, and imitated their actions so exactly as to produce a most

comical effect. At this time she denied ever having been at Springfield, nor could she be made to recollect a single individual with whom she was acquainted here, except one or two whom she had known in Brattleborough. Even the name of the people with whom she lived seemed unfamiliar and strange to her.

Generally her conceptions relative to place were, to a certain extent, correct—those relating to time were very commonly inaccurate. She almost invariably supposed it was *day* ; hence her common reply when reminded that it was time for her to retire, was, “What ! go to bed in the day time ?” And when I say her notions relative to place were in accordance with fact, the statement requires considerable limitation. She very frequently imagined herself in a different room from the one where she actually was, and almost always in the room which she usually occupied when awake.

Still her *movements* were always regulated by the senses, and not by her preconceived notions of things. Her chamber was con-

tiguous to a hall, at one extremity of which was the staircase. At the head of the stairs was a door which was usually left open, but which was once closed after she was asleep, and fastened by placing the blade of a knife over the latch. On getting up, she rushed impetuously from her room, and without stopping, reached out her hand before she came to the door, seized the knife, and throwing it indignantly on the floor, exclaimed, "Why do you wish to fasten me in?"

Without entering into minute detail, I will only mention some of the most remarkable circumstances which occurred at this early period of the complaint.

Allusion has been made to her sewing in the dark, and circumstances render it almost certain that she must at that time have threaded her needle also. Sometime after this occurrence she conceived the plan, during a paroxysm, of making a bag, in which, as she said, to boil some squash. She was then seen to thread a needle in a room in which there was barely light enough to

enable others to perceive what she was about, and afterwards, the same night, she was seen to do it with her eyes closed. In this condition she completed the bag, and though a little puckered, as she observed, it still answered very well to boil the squash in.

In one instance she not only arranged the table for a meal, but actually prepared a dinner in the night, with her eyes closed. She first went into the cellar in the dark, procured the vegetables, washed each kind separately, brought in the wood and made a fire. While they were being boiled, she completed the arrangements of the table, and then proceeded to try the vegetables to ascertain whether they were sufficiently cooked. After repeated trials, she observed the smallest of them were done—she took them up, and after waiting a little, said the rest would do, and took them up also. They were actually very well cooked. She then remarked that S., a little girl in the family, ate milk, and procured a bowl for her—she also procured one for her-

self and ate it. As the family did not seat themselves at table, she became impatient, and complained that the men never were ready for their dinner. While engaged in her preparations, she observed a lamp burning in the room, and extinguished it, saying "she did not know why people wished to keep a lamp burning in the day time." On being requested to go to bed, she objected, alleging as a reason, that it was day ; but was persuaded to do so by being reminded that she was not well, and that sleep would relieve her head. In the morning she appeared as usual, totally unconscious of the transactions of the preceding night.

At first, the paroxysms occurred only in the night, and generally soon after she went to bed. As the disease advanced, they commenced earlier—she then fell asleep in the evening, sitting in her chair—or rather passed into the state of somnambulism ; for her sleep, under these circumstances, was never natural. At a still later period, the attack took place at any hour during the day or evening. Af-

ter she began to be affected in the day time, the fit seldom commenced when she was in bed; and even when she retired, as she often did, in this state, she usually remained quiet till the paroxysm subsided—though at times she continued to talk and sing. Sometimes she suffered two distinct paroxysms in one day.

SECT. II. *General description of the Paroxysm.*

The following description of the paroxysms has reference only to that period of the disease in which the extraordinary acuteness of vision was manifested—after this was lost, most of the other symptoms were less marked, and many of them disappeared entirely.

The state of somnambulism was usually preceded by a full, heavy, unpleasant feeling in the head—sometimes by headach, ringing in the ears, cold extremities, and an irresistible propensity to drowsiness, attended with a feeling as if weights were appended to the eye-lids. There was almost always a slight contraction of the eye-brows, the cheeks were flushed, and sometimes

tinged with a crimson hue. By great exertions, the fit might be put off for hours after the appearance of these symptoms ; but, in order to gain this reprieve, it was necessary for her to walk, or be engaged in some active employment. The most effectual preventive was exposure to the open air. The moment these precautions were relaxed, and sometimes even in the midst of her active duties, she experienced what she described as a sense of rushing to the head, attended with a loss of the power of speech and motion. If in this state she was immediately carried into the open air, the fit was often arrested ; but if this was delayed a moment too long, she lost all recollection, and could not by any efforts be aroused. To a spectator she appeared like a person going quietly to sleep. Her eyes were closed, the respirations became long and deep, her attitude, and the motions of her head, resembled those of a person in a profound slumber. During the fit, the breathing, though sometimes natural, was often hurried, and attended with a peculiar moaning

sound, indicative of suffering. At times the pulse was accelerated, but generally it did not vary much from the natural standard. I have remarked, that in her first paroxysm the head was hot, but such was not commonly the case, nor was there any peculiar throbbing of the temporal arteries—the hands and feet, however, were almost invariably cold.

Her manner differed exceedingly in different paroxysms. Sometimes she engaged in her usual occupations, and then her motions were remarkably quick and impetuous—she moved with astonishing rapidity, and accomplished whatever she attempted with a celerity of which she is utterly incapable in her natural state. She frequently sat in a rocking-chair, at times nodding, and then moving her head from side to side with a kind of nervous uneasiness, the hand and fingers being at the same time affected with a sort of involuntary motion. In the intervals of reading or talking, and even when engaged in these very acts, her nods, the expressions of her countenance, and her apparent in-

sensibility to surrounding objects, forced upon the mind the conviction that she was asleep. Occasionally she was cheerful, disposed to talk, and willing to exercise her powers; the greater part of the time she was irritable and petulant. Pain in a circumscribed spot on the left side of the head was, I believe, always an attendant on the paroxysm, and frequently occasioned a degree of suffering almost beyond endurance. To this spot she invariably pointed as the seat of her agony when she repeated the expression, "it ought to be cut open, it ought to be cut open." Occasionally the whole system was thrown into agitation, and she presented the appearance of a person in a violent fit of hysterics.

Her eyes were generally closed, but at times they were stretched widely open, and the pupil was then very considerably dilated. These different states of the eye seemed to occasion no difference in the power of seeing—she saw apparently as well when they were closed, as she did when they were open. In the day time she always had the

eyes covered with a bandage during the paroxysm, nor would she allow it to be removed for a single moment, unless the room was unusually dark. In order to test the sensibility of the eye, I took one evening a small concave mirror, and held it so that the rays proceeding from a lamp were reflected upon her closed eyelid. When the light was so diffused that the outline of the illuminated space could scarcely be distinguished, it caused, the moment it fell on the eyelid, a shock equal to that produced by an electric battery, followed by the exclamation, "why do you wish to shoot me in the eyes?" This experiment was repeated several times, and was always attended with the same result. It was also tried when she was awake, and the effect, though less striking, was very perceptible. The same degree of light thrown on my eyelids, occasioned no pain.

How far she was sensible to the presence of surrounding objects, it is very difficult to determine; indeed, facts seem to prove that she was not, in every paroxysm, alike in

this respect. In the early stage of her complaint, she appeared to take little notice of persons, unless they were connected with her train of thought, and then she regarded those with her only as the representatives of the persons whom she imagined to be present. Nor did the sight or the hearing have any tendency to correct the false impression. Thus, in her first paroxysm, she regarded me as her father, and continued to do so as long as I remained with her ; but, in her subsequent fits, this idea was never revived. Her conception of persons was generally made to correspond with the idea of the place in which she conceived herself to be. She was in the habit, when well, of spending her evenings in the room with the children of the family, and it was in their company that she often imagined herself to be during the paroxysm. The questions which were at these times proposed to her to test her powers of vision, were cheerfully and readily answered, because they were questions which it was natural for children to ask ; or, at least, she supposed

them to proceed from children. Much that she said was also directed to them, though it was evident, at times, her conceptions and perceptions were strangely intermingled. In a paroxysm, soon after the arrival of her father, he asked her a question which she answered by addressing a little boy belonging to the family, who was not then in the room ; but his knife which he placed in her hand, she immediately recognized as her father's, and wondered how that came to be in Springfield while he was in Brattleborough. At a later period of her complaint, she appeared to comprehend more of what transpired in her presence, and accordingly she obstinately refused to read cards, or submit to experiments of any kind. These trials she then evidently regarded as so many attempts to impose upon her ; and in adopting this conclusion she reasoned with perfect consistency ; for if she actually could see as she appeared to— if to her vision, night was converted into day, and darkness into light, while she was unconscious of any thing peculiar to her-

self, what could be more annoying than to be constantly teased with questions which to her senses were perfectly obvious? If a request were made of her which appeared reasonable, especially if it related to her customary duties, she readily did whatever was required.

There is abundant evidence that she recollected, during a paroxysm, circumstances which occurred in a former attack, though there was no remembrance of them in the interval. A single illustration will suffice, though many more might be given. In a paroxysm, a lady who was present placed in her hand a bead bag which she had never before seen. She examined it, named the colors, and compared them with those of a bag belonging to a lady in the family. The latter bag being presented to her in a subsequent paroxysm, the recollection of the former was restored—she told the colors of the beads, and made the same remarks respecting the comparative value of the two bags that she had done before. I had taken measures to satisfy myself

in the interval that she then remembered nothing of the first impression.

Attempts to rouse her from this state were uniformly unsuccessful. She heard, felt, and saw; but the impressions which she received through the senses had no tendency to waken her. A pailful of cold water was in one instance thrown upon her; she exclaimed, "Why do you wish to drown me!"—went to her chamber, changed her dress, and came down again. Large doses of laudanum were sometimes given her with a view to relieve her pain—it appeared to mitigate her sufferings, and she was observed uniformly to wake soon afterwards. Excitements of every kind, and particularly attempts to draw forth her peculiar powers, invariably prolonged the fits, and generally aggravated the pain in the head.

At the termination of a paroxysm, she sunk into a profound sleep. The frown disappeared from her brow, the respirations again became long and deep, and the attitude was that of a person in undisturbed slumber. She soon began to gape and rub

her eyes, and these motions were repeated after short intervals of repose. In the course of fifteen or twenty minutes from the first appearance of these symptoms, she opened her eyes, when recollection was at once restored. She then invariably reverted to the time and place at which the attack commenced, and in no instance, when under my care, manifested any knowledge of the time which had elapsed, or the circumstances which transpired during the interval.

These paroxysms were very obviously connected with the state of the stomach and digestive organs. Though the appetite was generally good, food often occasioned oppression, and she not unfrequently raised a considerable portion of what she ate. She also had headach, acidity of stomach, and most of the symptoms usually termed dyspeptic. These circumstances had not indeed attracted much attention till after the occurrence of the paroxysms; but I then found that they had existed, in a slight degree, for some time, and that lately her sufferings from this source had been very

considerably aggravated. Improper food, and other causes affecting the stomach directly, I am confident, in several instances, occasioned an attack. The very first paroxysm occurred a few hours after she had eaten a large quantity of green currants; and two or three times afterwards, a paroxysm was occasioned by medicine which disturbed the stomach.

During the fit she very often called for food, particularly for apples; but she seldom awoke as soon as usual, after having gratified her appetite. At a time when she had invariably one or two paroxysms daily, I gave her an emetic, and afterwards allowed her to take but a small quantity of the simplest food; under this course she had but one slight attack for five days, and she was in every respect much better. The paroxysm which she had in this instance occurred also under circumstances illustrative of the nature of the complaint. It came on in the stage, when she was on the way to Worcester, and was preceded by sickness, to which she is very subject when riding in a close carriage.

SECT. III.—*Experiments proving the extraordinary power of vision.*

Though no decisive experiments were at first made to establish the fact, the members of the family in which she lived were very early convinced that she saw both when her eyes were closed, and in the dark. They were irresistibly led to this conclusion, when they saw her, night after night, perform that which seemed impossible for her to do without the aid of vision, when at the same time they could discover nothing which indicated the want of sight. She never betrayed any thing like hesitancy or indecision—there was no groping, no feeling after the object which she wished to lay hold of, but the motion was quick and direct, as if perfectly aware of its precise situation. When obstacles were placed in her way, or the position of a thing was changed, she always observed it, and accommodated herself to the change. This kind of evidence, though perfectly satisfactory to eye witnesses, is not so well calcu-

lated to produce conviction in the minds of others as tests of a different kind.

No direct trial of her powers of vision was made until Sabbath evening, Nov. 10th ; when it was proposed to ascertain whether she could read with her eyes closed. She was seated in a corner of the room, the lights were placed at a distance from her, and so screened as to leave her in almost entire darkness. In this situation she read with ease a great number of cards which were presented to her, some of which were written with a pencil, and so obscurely, that in a faint light no trace could be discerned by common eyes. She told the date of coins, even when the figures were nearly obliterated. A visitor handed her a letter, with the request that she would read the motto on the seal, which she readily did, although several persons present had been unable to decipher it with the aid of a lamp. The whole of this time the eyes were, to all appearance, perfectly closed.

The second day after this exhibition of her power, she fell asleep in the morning

in the act of procuring water from the pump. This was her first attack in the day time. Soon after, on going out of doors, she observed to her companion, "what a beautiful day it is, how bright the sun shines!" It was in fact quite cloudy. When asked by one of the ladies of the family to thread a needle, she refused, saying, "you can do it for yourself." Soon after, she went into a neighboring house, where there was an elderly lady to whom she often rendered this kind of assistance. This lady said, "Jane, I am old, and cannot see very well, will you thread my needle for me?" She immediately complied with the request, and threaded the needle not only at that time, but once or twice afterwards. She awoke from this paroxysm in the afternoon, and was quite distressed to find the fits beginning to affect her in the day-time.

The next morning she fell asleep while I was prescribing for her, and her case having now excited considerable interest, she was visited during that and the following day

by probably more than a hundred people. To this circumstance, undoubtedly, is to be attributed the unprecedented length of the paroxysm : for she did not wake till Friday morning, forty-eight hours after the attack. During this time she read a great variety of cards written and presented to her by different individuals, told the time by watches, and wrote short sentences.

For greater security, a second handkerchief was sometimes placed below the one which she wore constantly over her eyes, but apparently without causing any obstruction to the vision. She also repeated with great propriety and distinctness several pieces of poetry, some of which she had learned in childhood, but had forgotten, and others which she had merely read several years since without having ever committed them to memory. In addition to this she sung several songs, such as “Auld Lang Syne” and “Bruce’s Address to his Army,” with propriety and correctness. Yet she never learned to sing, and never has been known to sing a tune when awake. She was evidently very much exhausted by these

efforts, and at times her sufferings were so extreme that she could not be induced to answer any questions.

On Wednesday, Nov. 20th, I took a large black silk handkerchief, placed between the folds two pieces of cotton batting, and applied it in such a way that the cotton came directly over the eyes, and completely filled the cavity on each side of the nose—the silk was distinctly seen to be in close contact with the skin. Various names were then written on cards, both of persons with whom she was acquainted, and of those who were unknown to her, which she read as soon as they were presented to her. This was done by most of the persons in the room. In reading she always held the paper the right side up, and brought it into the line of vision. The cards were generally placed in her hand for the purpose of attracting her notice, but when her attention was excited she read equally well that which was held before her by another. I do not know that she ever read cards which *she had never seen*, when only the back was presented to her.

Being desirous, if possible, to prove that

the eye was actually closed, I took two large wads of cotton, and placed them directly on the closed eyelid, and then bound them on with the handkerchief before used. The cotton filled the cavity under the eyebrow, came down to the middle of the cheek, and was in close contact with the nose. The former experiments were then repeated without any difference in the result. She also took a pencil, and, while rocking in her chair, wrote her own name, each word separately, and dotted the i. Her father, who was present, asked her to write his name. "Shall I write Little Billy or Stiff Billy," was her reply, imagining that the question was proposed by a little boy of the name of William belonging to the family. She wrote *Stiff B lly*—the two words without connexion, and after writing them both, she went back and dotted the i in each. She then wrote *Springfied* under them, and after observing it a moment, smilingly remarked that she had left out a letter, and inserted the l in the proper place.

A watch enclosed in a case was handed

to her, and she was requested to tell the time—after examining both sides, she opened the case, and then answered the question. Afterwards, but in the same paroxysm, a gentleman present wrote his name in characters so small that no one else could distinguish it at the usual distance from the eye. As soon as the paper was put into her hand, she pronounced the name. It was thought that any attempt to open the eye would be indicated by the contraction of the skin on the forehead, but though she was closely watched, nothing of the kind was observed.

She also at this time repeated poetry and sung, as before. This she did almost every paroxysm ; and though there are some pieces which she must have repeated in this way scores of times, her knowledge of them when she is awake is not in the least improved by the practice. These experiments were performed in the presence of several of the most respectable and intelligent gentlemen in town, and they were all convinced there could be no deception.

While she was in a paroxysm a few

evenings afterwards, the lights were removed from her room, and the windows so secured that no object was discernible. Two books were then presented to her which had been selected for the purpose; she immediately told the titles of both, though one of them was a book which she had never seen before.

Monday, Nov. 25th, she was removed to my house; but, though she had several paroxysms in the interval, nothing worthy of notice occurred till the 30th. The morning of that day, as she was engaged in her customary employments, she complained suddenly of dizziness, seated herself in a chair, and immediately became insensible. Soon after, she applied a bandage to the eyes, went to her chamber and changed part of her dress. She then came down, and taking a basket which she had purchased the day before, and which was much soiled, remarked that it was dirty, and she would wash it. This operation she performed with as much neatness and despatch as she could have done when awake.

The room in the front part of the house

she had never seen except for a few moments several months since. The shutters were closed, and it was so dark that it was impossible for any one possessing only ordinary powers of vision to distinguish the colors in the carpet. She, however, though her eyes were bandaged, noticed and commented on the various articles of furniture, and pointed out the different colors in the hearth rug. She also took up, and read several cards which were lying on the table. Soon after observing her with a skein of thread in her hand, I offered to hold it for her to wind. She immediately placed it on my hands, and took hold of the end of the thread in a manner which satisfied me she saw it, and completed the operation as skilfully and readily as if she were awake. Having left the room a moment, I found her on my return with her needle threaded, and hemming a cambric handkerchief. She however soon abandoned her work, and was then asked to read a little while aloud. Bryant's Poems were given to her; she opened the book, and turning to the "Thanatopsis," read the whole, (three pages,) and

the most of it with great propriety. Something being said about her manner of reading, she observed there were parts of the piece which she did not understand, that she could read it much better if she understood it. The day before, she had procured several *samples* of calico at the shops, portions of some of which had been washed since the commencement of her paroxysm. On their being spread out before her, she not only told the shop at which she obtained each, and named its price, but compared the part which had been washed with the piece from which it was taken, and when there was any change, pointed out the difference.

A colored girl came in and seated herself before her: she was asked if she knew that lady; she smiled and returned no answer. Some one said, "She has a beautiful complexion, has she not?" Jane laughed heartily, and said, "I should think she was somewhat tanned."

At dinner, she took her seat at the table as usual, helped herself to bread when it was offered, presented her tumbler for water, and through the whole time, did not, by

her manner or actions, betray the least want of sight. After dinner the bandage which she put over her eyes in the morning, and which she had worn ever since, was taken off, and in its place a black silk handkerchief stuffed with cotton was bound on so as to fit accurately to the nose and cheeks. Though extremely reluctant on account of severe pain in the head, she was at length prevailed on to write a part of the "Snow Storm," one of the pieces which she is in the habit of repeating when asleep. She finished one stanza of six lines, and part of a second. In writing she followed for a time the ruled lines placed under her paper, but they having been displaced, she proceeded without them, continuing, however, nearly in a straight line. In one or two instances she failed to make a proper division of the poetry into lines, and several times misspelled words which she would not have done had she been awake. Twice she noticed the inaccuracy in the spelling, and corrected it at the time, but when writing the same word afterwards she fell into a similar error. A person standing

behind her very carefully interposed a piece of brown paper between her eyes and the paper on which she was writing. Whenever this was done she appeared disturbed, and exclaimed, "don't, don't." For some time I watched her narrowly to ascertain whether the bandage was constantly in place, but I could detect no change in its position.

A watch was presented to her, the face of which was concealed by a piece of brown paper placed between it and the chrystal. Instead of telling the time, she observed, "Any thing put a paper watch!"

In the evening, when the room was so dark that nothing but the position of the windows could be discerned by common eyes, a blue fancy handkerchief was placed before her, and she was asked if she did not wish for a beautiful pink handkerchief—she replied, "I hope I know blue from pink."

The next day, during a paroxysm, she went into a dark room and selected from among several letters, having different directions, the one bearing the name which she was requested to find. She was heard to

take up one letter after another and examine it, till she came to the one for which she was in search, when she exclaimed, "Here it is," and brought it out. She also, with her eyes bandaged, wrote of her own accord two stanzas of poetry on a slate; the lines were straight and parallel.

One circumstance I have omitted to mention, which is, the power of imitation which she occasionally exhibits. This extends not only to the manner, but to the language and sentiments of the persons whom she personifies: and her performances in this way are so striking, and her conceptions of character so just, that nothing can be more comical.

This, like her other extraordinary powers, is confined to the somnambulist state—at other times she does not exhibit the slightest trace of it.

Many other circumstances might be added similar to those which have been detailed; enough, however, has been given to illustrate the peculiar features of this singular case. I have not myself been a witness of every fact here related; but I have

mentioned nothing differing in kind or more remarkable in degree than I have seen with my own eyes. However extraordinary these phenomena may appear, therefore, I do not hesitate to vouch for the general accuracy of every statement.

SECT. IV.—*Abstract from the records of the hospital at Worcester.*

As it was very apparent that her disease was aggravated by the daily trial of her peculiar powers to which she was subjected by a constant succession of visitors, arrangements were made for Jane's removal to the Hospital in Worcester, where she could enjoy that seclusion which seemed essential for her cure. She accordingly left Springfield the fifth of December, and was the same day received into the Hospital.

The following abstract from the daily record of cases kept in that institution will be found to confirm the observations which had been before made relative to her extraordinary power of vision, and will show the progress which has been made towards a cure.

Jane had no paroxysm till the evening of December 6th, the day after her admission. "Immediately after falling asleep she began to breathe with difficulty, her mind seemed to labor, and she was uneasy and in perpetual motion. She said nothing till questions were asked her. She told the time of day by a watch, in the dark, with her eyes closed—the fire was not extinguished, and of course it was not entirely dark. Her pulse was 72 in a minute, and without irritation. She answered questions regularly, but with an air of impatience ; and said "they kept asking her to read, but she would not." She declared she would not go to Worcester, and said she was at Mr. Stebbins's in Springfield. Afterwards she complained she was locked up in the Hospital, and did not wish to stay, and that she would not have come here if she had expected to be locked up. One hour and a half after the commencement of the paroxysm, her feet were placed in a bath of the Nitro-Muriatic Acid. In five minutes she became calm, and went into a quiet sleep : in a few minutes more she waked very pleasant."

From this time till the 13th, she had from one to three paroxysms daily ; in some of which “she repeated passages of poetry very sweetly ; sung some tunes with correctness ; and, with her eyes bandaged, walked about the house, and from room to room, without inconvenience.” Many of these paroxysms, the Doctor observes, he is now satisfied were occasioned by improper food, particularly by the free use of fruit.

Dec. 13. “Jane had a more interesting paroxysm than at any time before since her residence in the Hospital. In a paroxysm the day previous, she lost a book which she could not afterwards find. Immediately on the access of the paroxysm to-day, she went to the sofa, raised the cushion, took up the book, and commenced reading. She read two or three pages to herself. Her eyes were then covered with a white handkerchief folded so as to make 8 or 10 thicknesses, and the spaces below the bandage filled with strips of black velvet. She then took a book and read audibly, distinctly, and correctly, nearly a page. It was then proposed

to her to play backgammon. She said she knew nothing of the game, but consented to learn it. She commenced playing with the assistance of one acquainted with the moves, and acquired a knowledge of the game very rapidly. She handled the men and dice with facility, and counted off the points correctly. Had another paroxysm in the afternoon in which she played a number of games of backgammon, and made such proficiency that, without any assistance, she won the sixth game of Dr. Butler, who is an experienced player. Knowing her to be a novice, he suggested several alterations in her moves—these alterations she declined making, and the result showed the correctness of her judgment. The Doctor, a little mortified at being beaten by a sleeping girl, tried another game, in which he exerted all his skill. At its close she had but three men left on the board, and these so situated that a single move would have cleared the whole. While she was engaged in this game, an apple was taken from a dish, in which there were several varieties, and held before her, but higher than her eyes.

On being asked its color, she raised her head, like a person who wished to see an object a little elevated, and gave a correct answer to the question. “In the lucid interval, half an hour after she awoke from the paroxysm, it was proposed to her to play backgammon. She observed she never saw it played, and was wholly ignorant of the game—on trial it was found she could not even set the men.”

Dec. 15. “Paroxysm rather singular. She is full of mischief like a roguish child—is very pleasant all the while, but will not read. At twilight her eyes were more open than common, but she insisted she could not see. Ate too heartily and felt sickness at stomach.”

Dec. 16. “Has been different in the paroxysms to-day. She opens her eyes and declares she cannot see, when they are shut. When reading, I placed my fingers on her eyes,—she said immediately it was total darkness, and she could not read a word. The fact

that her eyes are open in the paroxysms proves that they are less susceptible to light, and of course that her vision is less acute. At dinner her eyes were open, and all the family supposed her awake ; but she declared in the evening she had not the least recollection of dining, of seeing some friends, or of witnessing a catastrophe in the gallery which disturbed the whole family, and in which she was much interested at the time."

Dec. 18. "In the paroxysm this evening her eyes are open, and she appears, in all respects, like a person awake ; yet her manner is very different from that which she usually exhibits. She evidently has lost her former acuteness of sight—she protests she can see nothing when blinded, and will not attempt the least thing."

Dec. 19. "During the whole day the appearance was the same as on previous days, excepting her mind was more tranquil, and she was more disposed to melancholy. She once said her head ached, and felt

strangely. She appeared very much like a person insane. I gave her a letter about four o'clock, which she read, and remarked that she did not know that her friends expected her to write to them. At nine o'clock she was asked if she had seen a letter from Springfield; she denied that she had, but recollected circumstances which transpired yesterday; and, in this respect, was different from what she usually is during the paroxysm. A stranger would say, you have got an odd or insane girl, but would suspect nothing more. My family disagreed about the time of her coming out of the paroxysm; one thought she was out of it when others thought not."

Dec. 21. "Very well and wakeful all day, but in the evening had a paroxysm of complete insanity; talked, ran about the house, and refused to take her medicine. When forced to take it she shed tears, and fell into a sort of hysterical sobbing, which lasted some minutes."

Dec. 24. "Had a paroxysm in the evening, in which she played backgammon: at

first her eyes were closed, afterwards wide open. She said she could not read a word or see at all when blinded. Lately her face has been less flushed, and her head less painful."

Dec. 30. In a paroxysm to-day she wrote the following letter to her aunt. She afterwards remembered that she had written a letter, but could not recollect its contents.

"DEAR AUNT,

I feel that it is my duty to write to you, and inform you of my situation, as it is a very critical one. I received a letter from father yesterday, saying he had not written to you, and wished me to do so. I thought I would try. Perhaps you will wonder how I came to Worcester Hospital—but it is for my health. As I prize that above every thing else, I was willing to deny myself a great many pleasures only for a few months. I left home last April, and went to Springfield with a young lady of my acquaintance, and liked there so well that I concluded to stay and spend the

summer. While there I was attacked with the disorder that has brought me to the Hospital. The first attack was in June. It was about ten in the evening—the people called a physician; he thought it was partial derangement, and gave me an emetic that stilled me a little, and I got over it, and the next day was quite well. The people thought it was a very strange disorder, and let it pass off. But I was troubled almost every week with the same disorder, and it soon became something serious. I found I was growing worse every day, and was put under the physician's care. Medicine did not seem to have any effect, and I was still growing worse. In October I was attacked in the day time. It was Tuesday morning, and it continued till Friday morning, when I went into a natural sleep, and awoke up and knew nothing of what had passed. I will not try to give you any description of what I did, as I presume you have read it in the newspapers, as my case was the one referred to, and I think the pieces are not exaggerated in the least.

Father was sent for when I was in one

of my turns, as I do not know what else to call them, and reached Springfield in about 48 hours ; and an hour after I came out of it. He expected to take me home with him ; but I was taken the next morning, and continued so most of the time he was in Springfield. He said it was no place for me at home, and there must be something done. They then concluded to bring me here, as people thought if I could be cured any where it would be here ; and I am happy to say I am much better than I was when I came here. I have been here about a month, and I think I shall be entirely well in two months more, as my turns are not near as often, and no two have been alike. The people of Springfield were so much interested for me, that they offered to pay my board here until I was well ; so the night I left Springfield I had a present of 48 dollars.”

In the evening of the day on which she wrote the letter she had a very distressing paroxysm, which was followed by a mild form of fever which lasted several days ; for an account of which see Dr. Woodward's letter of January 6th.

Jan. 10. “Did not feel well all day yesterday—had confusion of head and flushing of face. At evening she had a paroxysm in which she recollected all that was done in the day ; and after the paroxysm all that was done in it. It lasted but half an hour, when she went into a quiet sleep and slept till morning.”

Jan. 11—13. “Had slight paroxysms in which consciousness was not lost—recollected in the paroxysms what transpired in the interval, and in the interval the circumstances of the paroxysm—is greatly inclined to indulge in eating, and if she eats freely is unusually dull and sleepy afterwards.”

Jan. 19. “Has had one or two paroxysms since the 13th similar to those last described. In the one to-day she repeated the “Pilgrim Fathers” very distinctly and correctly. I had censured her for eating fried cakes and the like between meals ; and she kept a fast during the paroxysm to-day, but called for pancakes, which she said might be eaten with impunity on fast-days.”

To the preceding history, Dr. Woodward has subjoined the following statement of his views respecting the nature of the disease, and an outline of the treatment which has been pursued.

“Worcester, Jan. 29th, 1834.

“The above abstract is taken correctly from the records of the Hospital, and forms an epitome of this interesting case of somnambulism since the subject of it has been in the institution. The object in placing Miss Rider in the Hospital was that she might be so far secluded from the intercourse of visitors as to afford a more favorable chance for a cure. The medical treatment pursued by her physician, Dr. Belden, was the same in general as that adopted at the Hospital; and our views of the nature of the case and the causes which led to the extraordinary symptoms perfectly coincide. To restore the equilibrium of the circulation, and to warm the feet, which were always cold, the Nitro-Muriatic Acid bath was prescribed, and has been continued almost daily to this time. The Tincture of Guaiacum,

Tincture of Sanguinaria, and calomel in small doses, were also given with the intention of affecting a secretion, which, at this period of life, is essential to health, and to the establishment of which the favorable change in her state is mainly to be attributed. Her head was also shaved, and blisters were applied to the part which had been painful from the first, and, at one time, to the inferior extremities likewise. Great care is still necessary on the subject of diet. Many of the paroxysms may be directly traced to the quantity or quality of the food which had previously been taken.

The somnambulism in this case undoubtedly depends on physical disease, and there is every reason to believe that it will gradually disappear, if a judicious course be pursued. Independent of all other considerations, I have no doubt, from the exhibitions at the Hospital, that all the facts stated in this history of the case are strictly correct.

“S. B. WOODWARD.”

During a late visit to Worcester, I had an opportunity of witnessing the improve-

ment in the health of my patient since her residence in the Hospital. Her face has lost the flush which it used habitually to wear—the head is now seldom painful, and there is no tenderness at the spot formerly affected, and the natural, healthful temperature of the extremities has been restored. There is still some oppression after eating, especially if she deviates from the regulations which have been prescribed respecting her diet; and any gross violation is almost certain to be followed by a paroxysm. Strong mental emotion too, or any kind of mental or physical excitement, conduces to the same effect; and, sometimes, is of itself sufficient to occasion a fit. In a paroxysm which occurred while I was there, the eyes were open and appeared nearly natural—the pupil was, perhaps, a little more dilated than common. Her manner was hurried—the speech and motions rather quick and abrupt. She appeared to be sensible of every thing which took place around her,—knew me, and answered my questions with propriety and correctness; and, so far as I could discover, had a proper concep-

tion of the relations of time and place. A handkerchief having been tied over her eyes she declared she could not see at all—said that it was perfect darkness to her. During the whole time her perceptions appeared to be more quick and vivid than natural. Her remarks, as in the earlier periods of her disease, were often distinguished for a degree of wit and brilliancy peculiar to these occasions. She also, at this time, sung as she formerly did. In the paroxysm she recollected circumstances which transpired a short time before, but did not, the next day, remember what occurred in the fit. The termination of the paroxysm is often less distinct than it formerly was, though the access, I believe, continues to be well marked.

Most of the facts contained in the following letters have already been noticed in the Journal; but, as some of these facts are stated in the letters more fully, and with additional circumstances, it has been thought that the history of the case would be rendered more complete by inserting them in the order in which they were received.

“*Worcester, Dec 18th, 1833.*

“DEAR DOCTOR,

I have deferred writing you on the interesting case of somnambulism to this time, as I have had nothing interesting, and particularly nothing new, to communicate. We repeated your experiments of reading, &c. with success; and our experience confirms yours fully, as our records will show. Jane learned the game of backgammon during the paroxysms, and now plays it well in them, but cannot play it at all in the lucid interval. She has had from one to three paroxysms a day till yesterday, when she had none. If undisturbed, she is quiet, and the paroxysms do not exceed an hour, during which she says little or nothing—if attempts are made to draw from her any thing interesting she remains much longer in the paroxysm. Indeed she has never waked till she was quiet and still. On Sunday the nature of the paroxysms changed—she became very mischievous about the house, and turned every thing *topsy-turvy*—she laughed constantly, and her eyes were open. On Monday this appearance was

still more manifest—her eyes were wide open—her *vision natural*, and she could not see at all *blinded*,—it is as dark as midnight, she says. She appears like any person awake, but more like an insane than a rational girl. Monday evening she said her head was better than it had been for several months, and she had no disposition to sleep. To-day she was wakeful, and has been busy. This evening she has a paroxysm *wide awake*, and is at this time playing backgammon, of which game she is fond during the paroxysm, but says nothing about it in the lucid interval. During the game, I placed a handkerchief over her eyes; she stopped immediately, and said, It is total darkness. I urged her to move, but she insisted she could not see at all. She is as well as usual, apparently contented, and generally pleasant—in her paroxysms much more so than she was when she came here. I have used the Nitro-Muriatic acid bath, and the Calomel pill, at night, and Tinct. Guaiacum in doses of one drachm three times a day. She has frequently come out of the paroxysm while

her feet were in the bath. She inclines to eat too freely, and during the paroxysm scolds about Dr. Belden's short allowance ; but always speaks respectfully of you, and all her Springfield friends, when out of the paroxysm.

On Monday, the day she was wide awake, she sat at table and ate her food as usual, and no one supposed her to be in a paroxysm. She witnessed a catastrophe in one of our dining rooms, and interested herself in the distress of a female attendant who got hurt ; but at evening, when in the lucid interval, she declared she had no knowledge of either the dinner or the other transaction.

I think the present change is favorable. It very clearly establishes the views which you had in common with me, that she saw through the articles interposed between her and the object, by the intensity of the power of vision. Now, I think, she has lost that acuteness of sight, and hence can open her eyes ; before, she would shrink if her eyes were open in day light. I shall be glad to answer any queries concerning this novel

case ; and, at the end of it, whatever may be its event, we must put our information together for the benefit of science, and to prevent those delusions from gaining ground which such cases are likely to beget, and strengthen.

Yours truly and affectionately,

S. B. WOODWARD."

"Worcester, Jan. 6, 1834.

"MY DEAR DOCTOR,

Considering you as the guardian of Jane C. Rider, I write to you to inform you that she has been laboring under a mild form of fever for a few days past. On Monday week, she had a long paroxysm of somnambulism, the last that she has had, and yet exhibiting hardly any peculiarity from the lucid interval. She complained of headach, and for the first time, in the evening, had a high hysterical paroxysm, wished me to cut her head open, and various other things like hysterical delirium. Her face was flushed and she complained of soreness in the *tender part*. I poured a stream of cold water on the head for a minute, but

when it struck upon the *tender part*, she uttered a scream, and immediately came to her usual consciousness. She had previously taken 40 drops of laudanum at two doses. She had a restless night, and got the clothes off the bed, and on the morning of Tuesday felt sick, which I supposed to be the effect of laudanum. Her headach continued, the tongue became coated and face flushed, her feet cold as marble, and inclined to be numb.

I shaved each side of her head and applied a blister, blistered her ancles and gave her calomel.

Her feet are still inclined to coldness, and her face is flushed. She has some headach all the time, her eye is dull, pupils rather large, light offends her. She laughs some—at times feels badly—is not severely sick ; and I should have no apprehension if hers were a common case. Yet I have hardly thought of the case since she came to the Hospital, but the idea of effusion has suggested itself to my mind, and I confess has given me some uneasiness during this slight illness.

I omitted to mention that the pulse is

slow—at least as slow as in health—tongue is still coated. I have been thus particular, as I know that her case is peculiarly interesting to you, and so singular to all of us as to leave us in doubt what changes are going on in the brain. I will apprise you if any thing new occurs in her case,—in the mean time we will see that every care be taken of her.

Yours affectionately,

S. B. WOODWARD.

“ Worcester, Jan. 11, 1834.

“ **KIND FRIEND,**

“ As it was your wish that I should write to you respecting my health, I have a good opportunity now, and I thought I would improve it. Dr. Woodward informed me that he had written you a short time since, telling you that I was sick ; but I am happy to say I am much better now, and think that being a little more unwell than usual has had a very good effect ; for I am much better than I was before it. I have had but two very slight paroxysms since the 30th of December, and they are very different from any I

ever had before. I can recollect what passed before them, when awake, while in the paroxysm, and after I get out of them, can recollect what passed during the paroxysm. I think I have lost the power of seeing in the dark.

I have seen in the Boston papers that I am entirely well, and have returned to my friends, and I hope I can say so myself in a few weeks; not that I am discontented in the least, for I am not. The time has passed very quick and pleasantly. I take a ride almost every day—that I like very much, and think it does me good. I feel as if I never could repay my friends in Springfield for all they have done for me—indeed I know I never can. All I can do is to thank them, and deny myself every thing that would be injurious to my health, and I find that it is very hard to resist every temptation: but when I think what has been done for me, I can. I have nothing more at present to write. Please to give my respects to Mrs. B. and all other enquiring friends. I am with respect,

Your most obedient friend,

JANE C. RIDER."

In the same letter, Dr. Woodward observes,

“I have nothing to add to Jane’s letter, but a confirmation of all that she has stated. The last paroxysms are short, and very unlike the others. The febrile attack has gone off very favorably. If she is extremely careful on the subject of diet and exposure, I feel confident that she will soon be free from her disagreeable disease.

Yours truly and respectfully,

S. B. WOODWARD.”

“*Worcester, Jan. 14, 1834.*

“DEAR DOCTOR,

“Yours of yesterday came to hand this afternoon. I hasten to communicate to you what information I can in the compass of a letter. Nothing particularly interesting occurred in the case, except what confirmed your common observation, till the 13th Dec. when she consented for the first time to read. Her eyes were blinded with a thick stout white cotton handkerchief, and the spaces under the eyes filled with strips of black silk velvet, till I, and Mrs. Woodward, and Dr. Chandler were satisfied that it would be

total darkness to us. I then took a book quite new to her, and opened it at a page wholly by accident. She took the book, and read the page distinctly and accurately, shut up the book, and declared she would read no more.

It was then proposed to her to play backgammon; she declared that she did not understand the game: she however consented to play, and with the assistance of an experienced prompter, threw the dice and made the moves correctly, always saying as the dice fell upon the board, five, six, &c. as the case might be. She learned the game pretty well in the course of the day—played with Dr. Bartlett of Lowell, Dr. Butler, the editor of the Mass. Spy, &c.

She slept nearly all day. At night she waked, and it was proposed to her to play the game. She said that she did not understand it; and, in attempting to play, she failed even to set the men. She has often played the game since, and has thoroughly learned it, and now plays it well both in the paroxysms and in the lucid interval. We

have found that when least disturbed she soonest comes out of the paroxysm.

From the time that she came into the Hospital till the 16th of Dec. her eyes were closed, and she was in great pain if forced to open them. On that day she walked about all the time of the paroxysm with her eyes wide open. They were dull and heavy, her face flushed, and she was very mischievous. On that and the succeeding days I tried the bandage on her eyes, and she uniformly declared that she could not see at all, and that it was total darkness. As she was so playful and roguish on those days, I did not feel that I could rely with great confidence on her statements, although the fact that the eyes were open led me to predict that she could not see. Subsequent experience has satisfied me, that this extraordinary power is lost, at least for the present. For some time after this change took place she did not recollect in the interval what occurred in the paroxysm, and was as much in the dark about it as she was before ;—recently she has a recollection of what occurs in the paroxysm afterwards, and her manners have

greatly improved in the paroxysm, so that she is now quite a civil, well bred somnambulist.

The fever left her in about a fortnight, or perhaps a day or two less. Her head and extremities were blistered, and she took Fowler's Solution. She had one long paroxysm, and two short ones of 15 or 20 minutes, in the fortnight. Her diet was then restricted to gruel, weak coffee, porridge, &c. I am satisfied she often has paroxysms from eating too much, or what is improper for her. She is also inclined to eat in the paroxysm, which in my opinion protracts it. * * *

During the early part of her residence here she repeated verses, in the paroxysms, which she could not recollect at all in the interval, and sung as at Springfield. At present I am confident she has lost that power, and that the acuteness of her faculties, as well as that of the senses, is lost.

With respect to a theory of this interesting case, I am confirmed in my first impression of the *rationalé* of the symptoms. Acuteness of vision to an astonishing degree and

of memory of early impressions—and as phrenologists would say, a morbid manifestation of the faculty of *time* and *tune*, so that she could sing accurately and agreeably, although she can do neither in her ordinary state of health. This is settling the matter at a sweep, I am sensible ; but yet it appears to be philosophically done. * * *

Truly and affectionately yours,

S. B. WOODWARD."

"Worcester, Feb. 11, 1834.

"DEAR DOCTOR,

* * * * * Jane's paroxysms have ceased altogether for the last 9 days, and she is in good health, excepting a distress after taking food. She has never appeared so cheerful, and in so good spirits, since her residence with us. During most of last week she did the duty of an assistant, in the absence of one of our attendants, and she has done more or less work in the halls every day. During the last paroxysm I applied leeches to her head. She waked during the paroxysm, not a little surprised at her new *head ornaments*. She now takes

the Myrrh and Iron pills, and no other medicine. She has lately chosen a milk diet, which suits her. * *

Yours truly,

S. B. WOODWARD."

CHAPTER III.

REMARKS.

Those who have witnessed Jane's conduct for a single hour during a paroxysm, need not be told that she is no impostor.— There is an air of honesty about her, which, however difficult it may be to describe, it is easy to discern, and hard to counterfeit. But, independent of any regard to her character, the very nature of the facts stated preclude the idea of imposition; certainly unless it be admitted that others were concerned with her in a conspiracy to delude the public. No art could enable her to see in a dark room, or when her eyes were closely covered. Nor is the supposition that she was assisted by others at all more tenable; for aside from the improbability of the thing, an argument which those only who know the circumstances can duly appreciate, the same phenomena have been witnessed at

Mr. Stebbins's, at my house, and at Worcester; and at neither of the removes which she made was she accompanied by a single individual who had before been connected with her. And, if any farther confirmation is necessary, the fact that a cure has been nearly effected by medical treatment, proves, most incontestably, that these extraordinary powers were the effect of bodily disease.

On reviewing this case, we at once perceive that in addition to the mental hallucination and the peculiar state of the bodily organs which constitute somnambulism, there is an unnatural or excited state of some of the intellectual powers connected with physical disease; analogous to that which exists in some cases of insanity, or in persons whose brain is affected by disease, or in consequence of mechanical violence. The extraordinary revival of past impressions, the ability to sing, and the talent of imitation, therefore, are to be classed with similar occurrences not connected with the somnambulist state.

The records of medicine furnish many examples of a similar affection of the mental

faculties connected with different diseases. In the case recorded by Dr. Dyce, most of the peculiarities which appeared so remarkable in Jane were observed ; but I now propose to notice a few examples in which the same symptoms have been witnessed disconnected with somnambulism.

“A case occurred in St. Thomas’s Hospital of a man, who was in a state of stupor in consequence of an injury of the head. On his partial recovery, he spoke a language which nobody in the hospital understood, but which was soon ascertained to be Welsh. It was then discovered that he had been 30 years absent from Wales, and before the accident he had entirely forgotten his native language. On his perfect recovery, he completely forgot his Welsh again, and recovered the English language.

“A lady mentioned by Dr. Prichard, when in a state of delirium, spoke a language which nobody about her understood, but which also was discovered to be Welsh.—None of her friends could form any conception of the manner in which she had become acquainted with that language ; but, after

much inquiry, it was discovered that in her childhood she had a nurse from Brittany, the dialect of which is closely analogous to the Welsh. The lady had at that time learned a good deal of this language, but had entirely forgotten it for many years before this attack of fever.

“A woman who was a native of the Highlands, but accustomed to speak English, was under the care of Dr. Macintosh, on account of an attack of apoplexy. She was so far recovered as to look around her with an appearance of intelligence, but the Doctor could not make her comprehend anything he said to her, or answer the most simple question. He then desired one of her friends to address her in Gaelic, when she immediately answered with readiness and fluency.

“An Italian gentleman, mentioned by Dr. Rush, who died of the yellow fever in New York, in the beginning of his illness spoke English, in the middle of it French; but on the day of his death he spoke only Italian.

“A case is related of a boy, who at the

age of four received a fracture of the skull, for which he underwent the operation of trepan. He was at that time in a state of perfect stupor, and after his recovery retained no recollection of the accident or the operation. At the age of fifteen, during the delirium of a fever, he gave his mother a correct description of the operation, and the persons who were present at it, with their dress, and other minute particulars. He had never been observed to allude to it before, and no means were known by which he could have acquired the circumstances which he mentioned."

Other examples of the influence of diseases on the mind might be added, but enough have been given to answer the purpose of illustration.

But that which distinguishes the case whose history has just been given from all others which I can find, and were I to judge from the incredulity with which the statements respecting it have been received, from all others on record, is the extraordinary power of vision. I say *extraordinary power of vision*; for I believe, darkness and bandages not-

withstanding, that when Jane read, wrote, &c., she actually *saw*; and that perception was not communicated in a mysterious way of which we can form no idea. In the records of animal magnetism, it is true, we read of persons acquiring a knowledge of external things by means which have no connexion with the senses: as for example discovering the contents of a sealed letter by merely applying it to the pit of the stomach or the back of the head, or what is stranger still, detecting the secret thoughts of another only by contact, or without contact, if placed in a certain magnetic relation. And strange as these facts appear, this system has believers; and many, I doubt not, ascribe the knowledge which Jane obtains of visible objects, when her eyes are closed, to an influence of this kind. I have received a letter from a very respectable gentleman who wished to ascertain some facts relative to her vision, obviously with a view to satisfy himself on this very point.

As to animal magnetism, its claims are of so very extraordinary a character, that a man must possess more than an ordinary

share of credulity who can at once be brought to admit them. But, without entering into a discussion of this subject, I am satisfied that all the facts in the case under consideration admit of a solution on less questionable principles.

Two things are necessary to vision; first, that an inverted image of the object be painted on the retina, or nervous expansion at the back of the eye: secondly, that the impression be conveyed to the brain in such a way as to occasion perception.

The eye is simply an optical instrument, made up of parts endowed with different refractive powers, so arranged and combined as to form a distinct image just where it should fall, on the retina. That part of the process of vision, therefore, which relates to the formation of this image, is purely physical,—the effect of a physical agent, modified by physical causes.—The eye is entirely passive—it affects the light passing through it in precisely the same way that inanimate transparent substances of the same form and density would affect it; that is, it changes the direction of the rays, and brings

them to a focus at a certain point behind it. Light must pass from the object through the eye, or no image will be formed on the retina ; and without this image, we cannot conceive it possible that external objects should be seen. The transfer of this impression to the brain by the optic nerve, and the perception which follows, are vital processes ; and, of course, may be performed with greater or less facility and perfection according to the state of the organs on which they depend. These principles must be regarded as established and fundamental, and no theory of vision, in the present state of science, can be admitted which is not based on them.

Darkness, strictly speaking, is the absence of light ; but, in the common acceptation of the word, its signification is only relative. We speak of darkness in relation to the organs of vision. To organs of a certain construction an apartment may be quite dark, and yet there may be light enough to enable animals whose relation to this element is different, to see perfectly. For example, many quadrupeds, and some birds, can see in an atmosphere which, to most men,

would appear totally dark ; and, judging from the habits of many tribes of insects, to which night is the season of activity and enjoyment, we should infer that their organs are adapted to the degree of light which then exists.

Light and heat are analogous in their laws, and in many of their properties. Heat, we know, cannot, by any means within our control, be entirely abstracted from any body or space ; for however low the temperature may be reduced, we feel confident that the reduction might be carried still farther.

Had we the same means of testing the presence of light that we have of heat, we should undoubtedly find that it is seldom absent from any space, however dark it may appear to our senses.

There are two ways in which objects may become visible in an atmosphere comparatively dark. The first is by an enlargement of the pupil, a round opening in the membraneous partition of the eye, through which the light must pass to reach the retina. In this way a greater number of rays than ordinary will be admitted, and

objects will thus be rendered perceptible which were before invisible. Hence it is that we can see better after having been a few moments in a dark room than when we first entered it. The second way in which objects may become visible, when there is too little light for ordinary vision, is by an increase in the sensibility of the retina, so that fewer rays than common are necessary to make a distinct impression. This increased sensibility may be the result of various causes. It may be the consequence of long confinement in the dark.—Some men who have been confined in dark cells for years, have in this way acquired an astonishing acuteness of vision. Causes affecting the whole nervous system may give to the sense of sight, in common with the other senses, a high degree of sensibility. The history of Caspar Hauser* furnishes a remarkable example of this general exaltation of the senses—his sense of smell was so acute as to be a source of unceasing annoyance—wherever he went he was assailed by disagreeable odors—almost every thing but bread and

* See Appendix, Note A.

water was disgusting to his taste—he could see much better in twilight than in open day, and in the darkest night needed no artificial light to enable him to walk securely through the most intricate passages in the city, or any where within the house. Inflammation too, it is well known, occasions an uncommon sensibility to light. In cases of inflammation of the eye, it often becomes necessary not only to exclude the light by bandages, but to confine the patient in a dark room—a single ray admitted to the eye often gives the most intense pain. In all cases in which the sensibility of the retina is much increased, too strong a light overpowers the organ ; in order to see distinctly, the degree of light must be less than that which would be required in the natural state of the eye.

There is abundant evidence that this increased sensibility of the retina existed in Jane, and that during the paroxysm it was augmented to a very great degree. Hence it was that the light of the sun always gave pain to the eye, even when she was in her usual health—hence, too, during the paroxysm, she always closed the eye to exclude

the light ; and, if the paroxysm occurred in the day time, made use of the additional defence of a bandage. This also accounts for the expression which she once used in a cloudy day—"what a beautiful day it is, how bright the sun shines !" The small quantity of light which passed through the eyelid, was sufficient, in the excited state of the retina, to give her the impression that the sun shone. The extreme pain which she experienced when the light was thrown upon the unprotected eyelid, with the mirror, is to be explained in the same way. The effect was equivalent to that which would be produced on a healthy eye, if, when open, it were suddenly placed in the focus of a powerful lens. These, and many other circumstances which might be mentioned, leave no room to doubt that the same causes which occasioned the paroxysm produced a very great temporary augmentation of the sensibility of the retina—a sensibility which enabled her to see distinctly in a room so dark that to common eyes no object was discernible.

But, the question arises, will this state of

the retina account for her seeing with her eyes closed and bandaged? *That she could not see through substances absolutely opaque is certain—she could not see through a watch-case, nor have I any reason to believe she could perceive objects through a book or a board, or in a distant apartment.* Light passes through the eyelid, as every one can satisfy himself by looking with his eyes closed towards a candle or the sun. It also passes through a bandage, but in so small a quantity as not to be noticed by our organs of vision. If in the dark, we hold a handkerchief doubled or even quadrupled between the eyes and a lamp, we can perceive light. We can easily conceive therefore that light enough may penetrate even a thick bandage to be perceived when the organ is in a state of high excitement.

There is, however, one objection to this view of the subject. It may be admitted that light penetrates the bandage, and in quantity sufficient for vision. But, that a person may see external objects, it is necessary that a *distinct* image of the object be formed on the retina, even though it be a

faint one. Now the rays of light, in passing through a bandage, or through the eyelid, are so variously refracted that no distinct image is formed. If a piece of common writing paper be held between the eye and a light, the paper appears luminous, but we cannot see through it. But, if the paper be oiled, it becomes, in a measure, transparent, so that we can see through it with tolerable distinctness. The rays of light in passing through it are then more equally *refracted*—that is, they are all alike bent out of their course, so that they afterwards form a distinct image. Light enough for vision unquestionably often penetrates the eyelid; but still we do not see, nor should we if the light were increased a thousand fold; no distinct image would be formed on the retina. Something more than an extraordinary sensibility to the impression of light is necessary, therefore, in order to understand how objects can be seen when the eyes are closed. There must be, it appears to me, a change in the brain itself—an excited state of the organ, in consequence of which perception, so far, at least, as relates to this or-

der of impressions, is effected more readily than usual. In this way we can conceive that it would be possible for even a confused image to be perceived.

Nor is this a mere supposition, entirely unsupported by evidence. There was certainly some change, in consequence of which Jane was able to recall past impressions with an extraordinary degree of distinctness. The power of perceiving the relation of sounds, which constitutes tune, was also developed, so that she could sing with a tolerable degree of correctness. These facts show conclusively, that some relations were perceived with a vigor and distinctness altogether unusual. Why not, therefore, admit that the same change extended to that function of the brain by which the mind perceives impressions transmitted from the retina?—or, in the language of phrenologists, that the organ of color was excited equally with that of tune?*

In the case of the servant girl, who in her paroxysms manifested such an astonishing

* See Appendix, Note B.

knowledge of Geography and Astronomy, it is not at all probable, that when she heard these subjects explained by the tutor she understood his meaning. If so, she would afterwards have alluded to it. In the paroxysms, her intellectual powers were so much increased that she comprehended what was before to her a mere tissue of words without meaning, or what was, at best, but very imperfectly perceived.

One of the most extraordinary examples on record, however, of the effect of disease in developing the power of perceiving a certain class of relations, is that of Zerah Colburn. His history is well known. When quite a child, in his sixth year, without any previous instruction, he could, by mere intuition, perceive the relation of numbers with so much readiness and precision, as to solve, almost without reflection, questions in arithmetic, which would require a long calculation to enable others to answer. How he obtained this result, he could not tell. The answer seemed to present itself to his mind with the same readiness, and conviction of

its truth, that the proposition, two and two make four, does to us.* These facts, I say, are well known ; but it is not so well known, that this power was the effect of disease. That such was the case, I have very little doubt. This was the opinion of a very distinguished physician who saw him at the time, and who ascertained that he was then affected with a peculiar nervous disease—the same which Jane had a few years since. In conversing with Mr. Colburn, about a year ago, I asked him if he retained the power of calculation which he possessed in his childhood. He said, No ; and attributed the loss to a want of its exercise. But why should it require exercise to sustain a faculty in existence which was spontaneously developed ?

Facts like these not only give plausibility to, but go far towards establishing, the opinion, that the power of perceiving certain properties or certain relations may be very greatly increased, while the power of perceiving other properties, or other rela-

* See Appendix, Note C.

tions, is not affected—and that this change is the result of physical causes influencing the brain. I conceive, therefore, that the extraordinary power of vision manifested by Jane, was the result of the combined effect of two causes:—First, increased sensibility of the retina, in consequence of which objects were rendered visible in comparative darkness. Second, a high degree of excitement in the brain itself, enabling the mind to perceive even a confused image of the object.

It has lately been announced in the newspapers as a new discovery that Jane's disease was in the stomach,—that all her peculiar symptoms were occasioned by temporary determinations of blood to the head, produced by the derangement of the digestive organs. So far from being a new discovery, this view of the nature of her complaint has been entertained from its very commencement, and upon it have been founded principally our hopes of a cure.

Physiology teaches us that thought, and all the intellectual operations, the suscepti-

bility of receiving impressions of external things by means of the senses, and the power of voluntary motion, are dependent on the brain. These functions may be entirely suspended by causes affecting this organ, as in apoplexy, where there is neither thought, motion, or sensation of any kind, or they may be modified in a great variety of ways. Nor is it always necessary that these causes should act directly on the brain itself. Such is the connexion between the different organs that they exert a mutual influence—when one suffers, another partakes in the derangement. Between the digestive organs and the brain, this harmony of parts, or sympathy, as it is technically termed, is particularly intimate. We all know that a full meal is not favorable to intense mental application, and the sick headach has undoubtedly furnished many of us with abundant and painful evidence of the sympathy between the head and the stomach.

It matters not by what means this mutual influence is exerted, whether by occasioning

a determination of blood to the part, or in some other way—the fact is all that is important, viz. that the sensibility of the different organs, and the facility with which intellectual operations are performed, may be increased or diminished by causes which affect the brain only indirectly.

We can now understand how a state of ill health, in which the brain is not primarily diseased, may occasion a train of symptoms with which it seems to have no relation.—If it be asked how a physical cause, acting either directly or indirectly on the brain, can restore to the mind that which had been long forgotten, or endow it with the power of perceiving relations to which it had before been insensible, I can only answer, I do not know ; nor do I know how the brain ever acts, when the mind perceives or remembers :—we here reach a gulf which human intelligence cannot pass.

The sudden developement of such extraordinary powers through the influence of disease, exhibits in a strong light the nature of the relation between the spiritual and

material portions of our being. The brain is the instrument by means of which the mind acts, and the increase of intellectual power is the effect of excitement in the physical organ. But this view of the case, though it establishes the indissoluble connexion between the state of the bodily functions and the manifestations of mind, is very far from proving that the latter are the mere result of organization. Indeed all the facts connected with this subject, when properly understood, lead directly to the opposite conclusion. The eye is essential to sight, the acuteness of which depends on the structure and condition of the organ—yet no one believes that the eye itself sees—it is only the instrument of vision. So of the brain ; it is the material organ by means of which the mind perceives, thinks and remembers ; and these mental acts are performed with a greater or less degree of perfection, according to the state of functional excitement in the parts on which they depend. And when from the mere stimulus of disease, we occasionally see the mind exerting un-

wonted powers, and astonishing us by the kind and rapidity of its attainments, we may, perhaps, form an imperfect idea of its condition in a future state, when its means of perception will not only be greatly improved, but vastly multiplied.

Dr. Woodward, whose standing in the profession, as well as opportunities of observation, deservedly entitle his opinions to great weight, has thrown out some suggestions on this subject which appear to me as just as they are beautiful. They are extracted, by permission, from a manuscript lecture which he lately delivered.

“That the mind is dependent upon, and intimately connected with, physical development, is one of the fundamental principles of physiology. It is useless to shut our eyes against the facts on this subject, and blindly to doubt, while every step in the progress of physiological science shows an intimate union between the physical system and the mind. In the commencement of our career the two systems are alike feeble, helpless, and imperfect. The limbs, though complete in organization, are almost wholly powerless.

less. The organs of sense, too, though perfectly formed, are capable of conveying to the mind only the simplest ideas, or the most indistinct and confused impressions, all of which are transitory, and require frequent repetition in order to convey any clear, distinct knowledge to the mind.

This indissoluble union and connexion is evinced by the fact that the body and mind both repose together ; that one is never healthy and vigorous while the other is feeble and infirm. The phenomena of disease show that one cannot be disturbed without the other unites in the suffering, and partakes of the evil. In Apoplexy, Catalepsy, and Syncope, the mind is apparently annihilated. A state of complete insensibility takes place for a time—all the efforts that we can make cannot restore consciousness till the physical powers are again renovated. Sensibility then returns, and all the mental energies, for a while so dormant, are awakened to life and restored to vigor. In injuries of the brain by compression or concussion, the same phenomena take place ; and,

if the injury is serious, the functions of the brain are never performed again, and a total loss of intellect exhibited in idiotism ; or an irregular performance of these functions, and incurable insanity is the result.

And how are we to account for the influence of age upon the mind, which apparently destroys it, so well as to suppose the physical system is unfit for its manifestation ? If the mind were independent of the body, it would lose none of its functions by a decay of the latter ; and such a decay under such circumstances would inevitably lead to the conclusion that the mind is annihilated when the man ceases to exist. On the other hand, the intimate connexion there is between a sound body and vigorous mind shows that the latter may act in a new sphere with all the energy of pristine existence.

Let us illustrate this by a familiar example. Suppose that an experienced player on a violin should take an excellent instrument, well tuned and well strung, and make music upon it of the finest kind. He continues to play, and after a while a string wears out and is broken—a key gives way and will no

longer do its office. He still plays on—the music becomes more and more imperfect, till finally the instrument is destroyed. Does this prove that the player has lost his skill? Surely not—the instrument only is worn out.

“So with the mind—when one and another sense and faculty is lost, and finally, in old age, every vestige of mind is obliterated—to all appearance blotted out forever.—It is far from being the fact; and this deceptive appearance is all attributable to the decay of the physical system, by which system only these manifestations of mind are apparent; and a new state of existence, like a resuscitation from syncope or asphyxia, will bring forth the mind with all its vigor and intelligence. And, may it not be that all the knowledge which has, for the whole life, been treasured up, will at once be brought to remembrance; and the energies of the mind, by the new impulses that shall then be given them, will be a thousand fold greater than they ever have been in their primitive existence? This is a view of the

subject which I have long contemplated, and which, for some time, I have believed to be true. My opinion is that all knowledge once impressed on the mind, remains indelibly fixed there, and only requires a strong stimulus to call it forth. In typhus fever, somnambulism, and other affections of the brain and nervous system, subjects long forgotten recur with freshness to the mind, and are repeated with facility and in detail.

In insanity past impressions return to the recollection with pristine freshness:—in dreaming, how many facts are presented to the mind, which have been for years apparently lost, because no stimulus sufficiently active has been applied to call them forth. Forgotten languages recur to the memory in disease; and insane people sometimes communicate their ideas in languages of which before they retained no recollection.

“If it should prove in a future state of existence, that all the knowledge which we gain in this world will, by the increased energy of mind, be restored to the recollection, and be at the command of the will,

and in the grand designs of the Almighty Intelligence we shall be unceasingly conscious both of the present and past, how exalted will be the future destiny of man, and how ought we to adore the wisdom and benevolence of the Deity !”

A P P E N D I X .

NOTE A.

The following extracts from the published "Account of Caspar Hauser," an account "drawn up from legal documents," and of unquestioned credibility, show "the almost preternatural acuteness and intensity of his sensual perceptions."

As to his sight, there existed in respect to him no twilight, no night, no darkness. This was first noticed, by remarking that at night he stepped everywhere with the greatest confidence; and that, in dark places, he always refused a light when it was offered to him. He often looked with astonishment, or laughed at persons, who in dark places, for instance when entering a house or walking on a staircase by night, sought safety in groping their way, or in laying hold on adjacent objects. In twilight, he even saw much better than in broad daylight. Thus, after sunset, he once read the number of a house at the distance of 180 paces, which in day light, he would not have been able to distinguish so far off. Towards the close of twilight, he once pointed out to his instructor a gnat, that was hanging in a very distant spider's web. At the distance of, certainly

not less than sixty paces, he could distinguish the single berries in a cluster of elderberries from each other, and these berries from black currants. It has been proved by experiments carefully made, that in a perfectly dark night, he could distinguish different dark colors, such as blue and green, from each other.

When, at the commencement of twilight, a common eye could not yet distinguish more than three or four stars in the sky, he could already discern the different groups of stars, and he could distinguish the different single stars of which they were composed, from each other, according to their magnitudes and the peculiarities of their colored light. From the enclosure of the castle at Nuremberg, he could count a row of windows in the castle of Marloffstein; and from the castle, a row of the windows of a house lying below the fortress of Rothenberg. His sight was as sharp, in distinguishing objects near by, as it was penetrating, in discerning them at a distance. In anatomizing plants, he noticed subtile distinctions and delicate particles, which had entirely escaped the observation of others.

Scarcely less sharp and penetrating than his sight, was his hearing. When taking a walk in the fields, he once heard, at a distance comparatively very great, the footsteps of several persons, and he could distinguish these persons from each other, by their walk.

Of all his senses, that which was the most troublesome to him, which occasioned him the most painful sensations, and which made his life

in the world more disagreeable to him than any other, was the sense of smelling. What to us is entirely scentless, was not so to him. The most delicate and delightful odors of flowers, for instance the rose, were perceived by him as insupportable stench, which painfully affected his nerves.

What announces itself by its smell to others, only when very near, was scented by him at a very considerable distance. Excepting the smell of bread, of fennel, of anise, and of caraway, to which he says he had already been accustomed in his prison, — for his bread was seasoned with these condiments — all kinds of smells were more or less disagreeable to him. When he was once asked, which of all other smells was most agreeable to him? he answered, none at all. His walks and rides, were often rendered very unpleasant by leading him near to flower gardens, tobacco fields, nut trees, and other plants which affected his olfactory nerves; and he paid dearly for his recreations in the free air, by suffering afterwards from headaches, cold sweats, and attacks of fever. He smelt tobacco, when in blossom in the fields, at the distance of fifty paces, and at more than one hundred paces, when it was hung up in bundles to dry, as is commonly the case about the houses in the villages near Nuremberg.

He could distinguish apple, pear, and plum trees from each other at a considerable distance, by the smell of their leaves. The different coloring materials used in the painting of walls and furniture, and in the dying of cloths, &c., the pig-

ments with which he colored his pictures, the ink or pencil with which he wrote, all things about him, wafted odors to his nostrils which were unpleasant or painful to him. If a chimney sweeper walked the streets, though at the distance of several paces from him, he turned his face shuddering from his smell.

What we call unpleasant smells, were perceived by him with much less aversion, than many of our perfumes. The smell of fresh meat was to him the most horrible of all smells. When Professor Daumer, in the autumn of 1828, walked with Caspar near to St. John's churchyard, in the vicinity of Nuremberg, the smell of the dead bodies, of which the professor had not the slightest perception, affected him so powerfully, that he was immediately seized with an ague, and began to shudder. The ague was soon succeeded by a feverish heat, which at length broke out into a violent perspiration, by which his linen was thoroughly wet.

In respect to his sensibility of the presence of the metals, and his ability to distinguish them from each other by his feelings alone, Professor Daumer has collected a great number of facts, from which I shall select only a few. In autumn, 1828, he once accidentally entered a store filled with hardware and particularly with brass wares. He had scarcely entered, before he hurried out again, being affected with violent shuddering, and saying that he felt a drawing in his whole body in all directions.

At a time when Caspar was absent, Professor

Daumer placed a gold ring, a steel and brass compass, and a silver drawing pen under some paper, so that it was impossible for him to see what was concealed under it. Daumer directed him to move his finger over the paper without touching it ; he did so ; and by the difference of the sensation and strength of the attraction, which these different metals caused him to feel at the points of his fingers, he accurately distinguished them all from each other according to their respective matter and form.—Once, when the physician, Dr. Osterhausen, and the royal crownfiscal Brunner from Munchen happened to be present, Mr. Daumer led Caspar, in order to try him, to a table covered with an oil cloth, upon which a sheet of paper lay, and desired him to say, whether any metal was under it ; he moved his finger over it and then said : there it draws ! “ But this time,” replied Daumer, “ you are nevertheless mistaken ; for,” withdrawing the paper, “ nothing lies under it.” Caspar seemed at first to be somewhat embarrassed ; but he put his finger again to the place where he thought he had felt the drawing, and assured them repeatedly, that he *there* felt a drawing. The oil cloth was then removed, a stricter search was made, and a needle was actually found there.

When he laid his hand upon a horse, a cold sensation, as he said, went up his arm ; and when he was mounted, he felt as if a draught of wind passed through his body. But these sensations went over after he had several times rode his horse around the riding school.

When he caught a cat by the tail, he was seized with a strong fit of shivering, and felt as if he had received a blow upon his hand.

NOTE B.

It will scarcely escape the observations of phrenologists, that the organs which, according to the system of Spurzheim, correspond to the mental faculties that were affected during the paroxysms, are grouped together in the anterior part of the brain, near the region in which she felt such acute pain. The organs of Color, Tune, Time, Wit and Imitation, were evidently, in the language of phrenology, morbidly excited. It is certain also that the excitement was confined almost entirely to the intellectual faculties—the sentiments and propensities were not at all affected. There was no uncommon manifestation of Benevolence, Veneration or Hope, nor of Combateness, Destructiveness, or any other of the propensities. Whatever may be said of the specific details of phrenological science, the facts brought to light in this and other analogous cases, it must be admitted, go very far towards establishing the fundamental principle that the mind acts by separate, and to a certain extent, independent organs.

NOTE C.

The power of computation evinced by the youthful Colburn, springing up as it did spontaneously, and without any previous instruction, is one of the most remarkable facts in the history of mind; and is in itself much more incomprehensible than the extraordinary acuteness of vision manifested by the subject of this memoir. Its discovery was purely accidental. Zerah, not having yet completed his sixth year, was overheard by his father as he repeated to himself, in his play, parts of the multiplication table. The father, surprised to find that a boy, who had hitherto possessed no advantages beyond a six weeks' attendance at the district school, discovered such a knowledge of numbers, proceeded to examine him; and, finding him perfect in the table, asked him the product of 13×97 , to which 1261 was instantly given in answer. The following extract from a memoir written by himself, and published within the last year, will show the facility with which he performed numerical operations in his ninth year.

At a meeting of his friends which was held for the purpose of concerting the best method of promoting the interest of the child by an education suited to his turn of mind, he undertook and succeeded in raising the number 8 to the sixteenth

power, and gave the answer correctly in the last result, viz. 281,474,976,710,656. He was then tried as to other numbers, consisting of one figure, all of which he raised as high as the tenth power, with so much facility and dispatch that the person appointed to take down the results was obliged to enjoin him not to be too rapid. With respect to numbers consisting of two figures, he would raise some of them to the sixth, seventh, and eighth power, but not always with equal facility; for the larger the products became, the more difficult he found it to proceed. He was asked the square root of 106,929, and before the number could be written down he immediately answered 327. He was then requested to name the cube root of 268,336,125, and with equal facility and promptness he replied, 645.

Various other questions of a similar nature respecting the roots and powers of very high numbers, were proposed by several of the gentlemen present, to all of which satisfactory answers were given. One of the party requested him to name the factors which produced the number 247,483, which he did by mentioning 941 and 263, which indeed are the only two factors that will produce it. Another of them proposed 171,395, and he named the following factors as the only ones, viz. : 5×34279 , 7×24485 , 59×2905 , 83×2065 , 35×4897 , 295×581 , 413×415 . He was then asked to give the factors of 36,083, but he immediately replied that it had none; which in fact was the case, as 36,083 is a prime number.

It had been asserted and maintained by

the French mathematicians that 4294967297 ($=2^{32}+1$) is a prime number; but the celebrated Euler detected the error by discovering that it was equal to $641+6,700,417$. The same number was proposed to this child, who found out the factors by the mere operation of his mind.

On another occasion, he was requested to give the square of $999,999$; he said he could not do this, but he accomplished it by multiplying 37037 by itself, and that product twice by 27 . Ans. $999,998,000,001$. He then said he could multiply that by 49 which he did: Ans. $48,999,902,000,049$. He again undertook to multiply this number by 49 : Ans. $2,400,995,198,002,401$. And lastly he multiplied this great sum by 25 , giving as the final product, $60,024,879,950,060,025$. Various efforts were made by the friends of the boy to elicit a disclosure of the methods by which he performed his calculations, but for nearly three years he was unable to satisfy their inquiries. There was, through practice, an increase in his power of computation; when first beginning, he went no farther in multiplying than three places of figures; it afterwards became a common thing with him to multiply four places by four; in some instances five figures by five have been given.

LETTERS FROM SEVERAL GENTLEMEN.

FROM THE HON. WM. B. CALHOUN.*Boston, Feb. 6, 1834.*

DEAR SIR,

In reply to your note of the 30th ult. I can simply state, that I saw Miss Rider, repeatedly, in the paroxysms of somnambulism or reverie. Her eyes were covered with a closely folded silk handkerchief, having a thick wadding of cotton underneath—the whole drawn tightly over her eyes. In this situation, I saw and heard her read whatever was presented to her, promptly and distinctly, under circumstances which precluded, in my opinion, all chance of deception. Several experiments of this nature were tried in my presence, which satisfactorily removed all the distrustfulness that I had previously felt.

Your friend and ob't servt.

W. B. CALHOUN.

DR. BELDEN.

FROM THE REV. W. B. O. PEABODY.*Springfield, Feb. 14, 1834.*

DEAR SIR,

I had the pleasure of hearing your lecture de-

livered in the Springfield Lyceum, and with respect to those facts which fell under my observation, I can confidently add my testimony to your own. Before I saw Jane Rider, I had no confidence whatever in the reports which I heard of her extraordinary power of vision, for the simple reason that I thought it more easily accounted for on the supposition of imposture : acting under this impression, when I first saw her in this state, I endeavored to startle her with a charge of imposture, so sudden and unexpected, that she must have betrayed signs of some emotion, of anger at least, had she been conscious of what was passing : but such experiments, though convincing, were unnecessary ; for the most skeptical could not see her, for any length of time, without being persuaded that she was actually in a deep sleep. I saw your experiments, in which you covered her eyes, and after close examination, I was convinced that she could not see under the bandage : but had she done so, the papers which she read, were held in such manner, as not to be seen in that direction. While one of the cards was before her, I looked at it at the same time and the same distance, without being able to distinguish a letter ; which was the more remarkable, since I ascertained by experiment

when she was awake, that she was very near-sighted, not being able to read at the distance of two feet what others could read without difficulty when it was twice as far from their eyes. When these experiments and the precise circumstances under which they were tried are given to the world in your lecture, those, if there are any, who are not inclined to admit the facts, will be under the necessity of showing in what manner you were deceived ; your experiments were as numerous and thorough as circumstances would allow : so that it will not be enough to discredit the statement without explaining how so many witnesses were misled, the great proportion of whom, like myself, went to the place thoroughly incredulous, and left it thoroughly satisfied that there could be neither delusion nor imposture.

Respectfully and truly yours,

W. B. O. PEABODY.

FROM DR. JOHN STONE.

Springfield, Feb. 14, 1834.

DEAR SIR,

In compliance with your request that I would give you my opinion of the interesting case of Miss Rider, I simply state that, on one occasion, I saw her in a paroxysm of somnambulism, and

heard her repeat distinctly and correctly several passages of poetry which, it was said, she could not recollect when awake. She also, in my presence, with her eyes bandaged, read several cards which were presented to her; and, in a single instance, one which was held behind a palm-leaf fan in such a manner that, I am satisfied, she could perceive it only by light passing through the fan. From my observation of the case I am convinced that her apparent power of distinguishing objects in the dark, and with her eyes covered is *real*; and that the facts which have been observed cannot be accounted for on the supposition of imposture.

Yours, &c.

JOHN STONE.

FROM REV DR. OSGOOD.

Springfield, Feb. 15, 1834.

I hereby certify that I was present when many of the experiments were made upon Jane Rider, as narrated in the above history of her case, and am sure that there could have been no deception practised; I fully believe that every thing written by Dr. Belden is without exaggeration.

SAMUEL OSGOOD.

FROM DR. M. B. BAKER.

Springfield, Feb. 14, 1834.

Having, by the politeness of Dr. Belden, had frequent opportunities of seeing Miss Rider, I am happy to state that I witnessed many of the most remarkable phenomena of her case, and that they are correctly described by him in his account of her; that the experiments with regard to vision seemed to me to be fairly performed, and that there does not seem to me to be the slightest reason to suspect her of any attempt to impose upon the public.

M. B. BAKER, M. D.

Errata.

Page 26, ninth line from bottom, quotation marks at *The*, ending with the chapter.

“ 36, fourth line from bottom, strike out the *and*.

“ 53, third line from top, *powers* should be singular.

“ 62, tenth line from bottom, for *however*, read *to write*.

“ 63, twelfth line from top, for *chrystal*, read *crystal*.

“ 63, fourteenth line from top, for *put* read *but*.



